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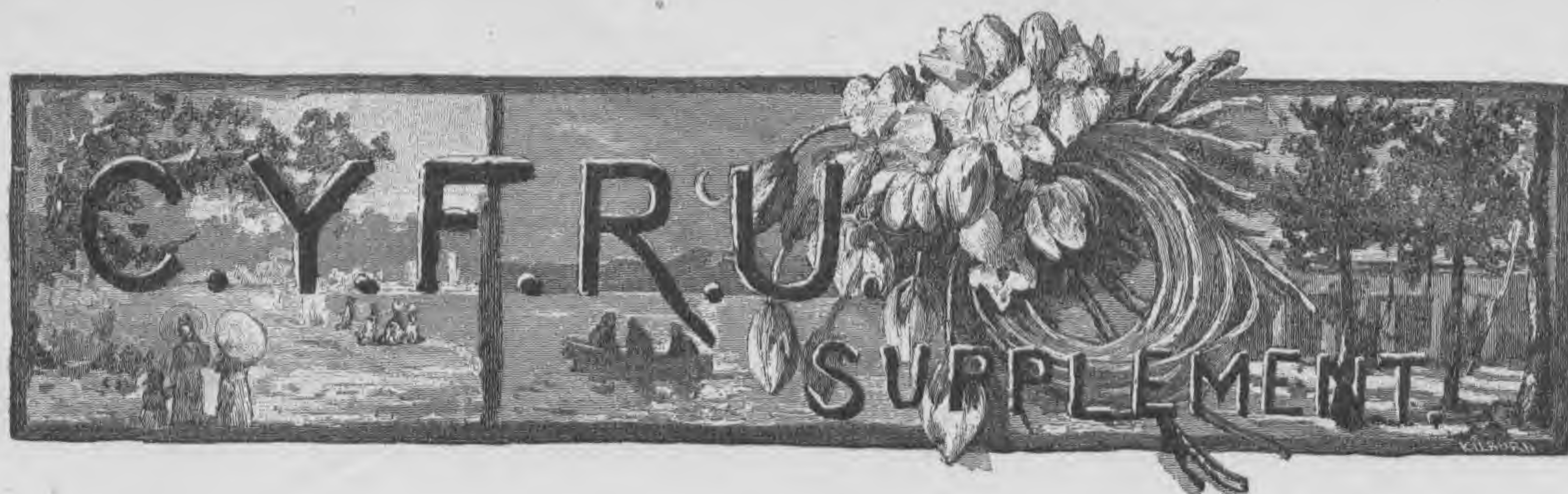
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WIDE AWAKE

PLEASURE BOOK.



BOSTON:
D. LOTHROP & COMPANY, PUBLISHERS,
FRANKLIN STREET.



NOTE.—The Editors and Publishers of *WIDE AWAKE* have pleasure in giving this month the first of a series of regular supplements, forming a *Permanent Enlargement* of the magazine, and designed as a course of readings for the Reading Union they long have had in contemplation, and which, in honor of the thousands of Chautauqua Young Folks who have decided to adopt this course, they have named the Chautauqua Young Folks' Reading Union (C. Y. F. R. U.).

These supplements, in their happy combination of entertaining and educational elements, will prove, it is believed, one of the freshest, most fascinating, and really valuable features of modern magazine literature. They are designed to supplement home and school in the fuller development of American young people—body, mind and heart.

All *WIDE AWAKE* boys and girls, American, English, or of whatever nation, are cordially invited to join the C. Y. F. R. U.; for while it is quite certain none of them will fail to read the supplements, it is equally certain that the feeling that thousands of boys and girls all over the world are interested and united with them in a definite Reading Course will rouse and maintain a healthful enthusiasm.

THE JUVENILE SIDE OF CHAUTAUQUA.

BY REV. DR. J. H. VINCENT.

THERE is a sort of "city camp" on the shores of Chautauqua Lake in Western New York, to which every summer hosts of children and young people come with their parents and friends for a short sojourn. Some stay for two weeks and some for ten. All who once visit the place want to visit it again, for if there be a "children's paradise" on the planet, it is at Chautauqua.

Here the young folks revel in innocent and helpful recreation—bathing, fishing, rowing, sailing; gathering mosses, ferns and wild flowers; playing at croquet, lawn tennis or archery; wielding wands, rings or dumb-bells in the calisthenic hall; or gliding about in the roller-skating rink.

Now in company a number of the little folk make a pilgrimage through the "Park of Palestine" by the lake side, with its miniature hills, valleys and cities, the Dead Sea, the ever-flowing Jordan, the lake Genessaret, and the hills of Moab and Bashan beyond; going "round about Jerusalem," they study the "Holy City"—houses, mosques, minarets, ruins, tombs and olive groves, all represented on a scale large enough to make the little looker-on feel as though he were really living in that old and blessed "Land of Promise." As they go about, venturesome members of the party try to climb a section model of the pyramid of Gizeh. They enter the Jewish tabernacle and examine its altars, golden candlestick, table of shew-bread, the holy of holies, and the ark of the covenant. Beyond this they find the Archæological Museum with its huge Assyrian and Egyptian figures, its pictures, models, relics, parchments and other ancient treasures. In the Educational Museum they

find the "Language Alcove," where, if so inclined, they may study the names, in German, French, Latin and Greek, of several hundred toys representing a large variety of familiar objects.

On and after the first Wednesday morning in August every year, the little pilgrims to Chautauqua may daily spend an hour in the children's temple on the hill, where the best teachers may be found to give instruction in the Bible, and to delight them with songs and pictures and scientific experiments. For weeks they have opportunity to hear historical and scientific lectures, and to attend concerts, vocal and instrumental. I am happy to say the children at Chautauqua are wise enough not to embrace too many of these opportunities.

At night—well, no one can adequately report the glories of the Chautauqua nights—there are electric lights, the finest fireworks, camp-fires, children's bonfires, the "illuminated fountain," and the "vision of the silver palace." One night during the season our visitors are sure to see the "illuminated fleet"—the lake being then covered with boats of every size, two hundred or more, decorated with lanterns from stem to stern and from deck to topmast. On another night they see a naval fight between two huge ships, the sky being filled with smoke and fire, rocket and bomb "bursting in air."

From the peal of the "Chautauqua bells" at six o'clock in the morning, until they ring out their sweet "good-night" at half-past ten, Chautauqua children and Chautauqua old people may enjoy restful recreation and inspiring instruction.

But I have not yet told my young readers the best

feature of Chautauqua. In St. Paul's Grove, on the hill, is the "Hall of Philosophy," a building with great snow-white columns, reminding one of the marble Parthenon on the Acropolis in Athens. This "Hall in the Grove" is the centre of the great "Chautauqua Literary and Scientific Circle," embracing thousands of members—students, full-grown men and women, who never see Chautauqua itself, but who, having joined the Circle, regard the "Hall of Philosophy" as a shrine toward which their thoughts turn longingly every day. The Circle numbers more than twenty thousand members, in all parts of the world, representing all the churches and nearly all the nationalities. It provides a four years' course of reading; annual reports; memoranda (something like "examination papers" in your day school); cards of membership; "memorial days" to be observed; mottoes to be remembered; and a variety of ingenious and pleasant devices for making grown-up people "young" and sending them to school again. Some of the members are over seventy-five years old, many over fifty, and very few under twenty. During the annual meetings at Chautauqua in August, hundreds of the C. L. S. C. members meet in the "Hall of Philosophy" for "Round Table" conferences, discussions, outline lessons, songs and lectures. On one night they gather about a huge camp-fire for speeches, songs, and a good time.

The question has for several years been asked, Why should not the Chautauqua young folks, and the young folks elsewhere and everywhere, have a "Circle," or "Reading Union," organized for their benefit, with Chautauqua as a centre? Already there is a "Chautauqua Chapter" of the "Look Up Legion." For several years there has been a "Chautauqua Children's Class" for Bible study, with its annual competitive examinations, certificates, badges and prizes. Why may we not form a *Chautauqua Young Folks' Reading Union* for children, and young people who though no longer children are not quite old or advanced enough to join the C. L. S. C.?

The C. Y. F. R. U.—why not? Would not the C. L. S. C. rejoice to recognize and help the C. Y. F. R. U.?

* * * * *

The CHAUTAUQUA YOUNG FOLKS' READING UNION (day of organization, Thursday, August 18, 1881) is designed to encourage among children and young folks right habits of reading and exploration in general history, literature, science and the arts; to promote observation, inventiveness, helpfulness and handiness in practical matters; to prepare young people to enter and to enjoy "society;" to direct in legitimate recreations; and in every possible way to fill the early years of life with everything that tends to health, cheerfulness, reverence, self-control, unselfishness, fidelity to duty, and that highest "wisdom" which the good and great of all the ages have commended.

To these ends, READINGS, "Required" and "Suggested," are preparing for the members of the C. Y. F. R. U., under the supervision of a committee. These Readings include more or less of active experiment, exploration and exercise, and suggest and inspire the formation of pleasant Local Circles or Branches.

The organ of the C. Y. F. R. U. will be WIDE AWAKE, which will contain monthly, in addition to its rich treasury of entertaining and instructive matter, a Supplement of articles in series, designed for the members of the Reading Union; and, in connection with this WIDE AWAKE Supplement, books of high character will from time to time be prepared and selected.

The REQUIRED READINGS for the first year, beginning Oct. 1st, 1881, include the several series of articles in the C. Y. F. R. U. Supplement:

MAGNA CHARTA STORIES—12 papers.
WAYS TO DO THINGS—6 papers for boys, 6 papers for girls.
OLD OCEAN—12 papers.
THE TRAVELLING LAW SCHOOL—12 papers.
LITTLE BIOGRAPHIES—MUSIC—12 papers.
HEALTH AND STRENGTH PAPERS—12 papers.
WHAT TO DO ABOUT IT—12 papers.
MISCELLANEOUS PAPERS on Natural History, Natural Philosophy, Astronomy, Chemistry, Geology, Botany, Ornithology, or Entomology—12 papers.

And also the following books:

STORIES FROM ENGLISH HISTORY, 2 vols., in the Lyceum Library (Phillips & Hunt, New York).
BEHAVING: Papers on Children's Etiquette (D. Lothrop & Co., Boston).
THE STORY OF ENGLISH LITERATURE (D. Lothrop & Co., Boston).

A special club rate has been arranged for members of the C. Y. F. R. U., as follows:

WIDE AWAKE (per year)	\$2.50
STORIES FROM ENGLISH HISTORY (2 vols.)	20
BEHAVING (present edition \$1.00)	50
STORY OF ENGLISH LITERATURE (present edition \$1.25)	75
	<hr/> \$3.95

All to be clubbed for \$3.00.

The SUGGESTED READINGS, in addition to the Required Readings, include certain articles in the body of WIDE AWAKE to be indicated each month in the Supplement, and a few carefully selected books, titles of which, with retail and club price, will be announced next month.

An early number will contain suggestions for the formation of local circles, etc.

All young people may pursue the Reading Courses, but those who desire to be formally enrolled as members of the C. Y. F. R. U., and to receive the president's annual address, class memoranda, and certificates, should report their names and P. O. addresses, enclosing the annual fee of ten cents for postage, etc., to REV. DR. J. H. VINCENT, Plainfield, N. J.

MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

I. — THE GREAT PAPER.

BY HARRIET D. SLIDELL MACKENZIE.



even so high a price as that. It is now in the British Museum, in London. It is old and worn. It is more than six hundred and sixty-six years old. It is not easy to realize how old that is. Kings have been born and died, nations have grown up and have wasted away, during that long time. There was no America (so far as the people who lived at that time knew) when this old paper was written upon. America was not discovered for nearly three hundred years after it. A king wrote his name on this old paper, and though he had written his name on many other pieces of paper, and they are lost, this one was very carefully kept from harm, though once it fell into the hands of a tailor, who was about to cut it up for patterns, and at another time it was almost destroyed by fire.

Visitors go to look at it with great interest. They find it a shrivelled piece of paper, with the king's name and the great seal of England on it; but they know that it stands for English liberty, and means that — as the poet Thomson wrote, in the song "Rule Britannia" — "Britons never shall be slaves." It is called the "Magna Charta," which means simply the "Great Paper." There have been other great papers, and other papers that have been called "charters," but this one is known the world over as the "Great Paper."

As you look back into English history you will see that all the way along our ancestors have been striving with their might to be free. They were willing to have kings, but they wished to have them reasonable and not tyrannical. They had always to be on the watch; for every once in a while a king would arise who would try to take away some right or privilege which they had gained. This was the case after Edward the Confessor, as he is called, had abolished a heavy tax called the Danegelt, and given them mild laws. When the conquering Norman, William, came to oppress the English, he revived the

MANY pieces of old paper are worth their weight in gold. I will tell you of one that you could not buy for

hated tax, but they got it repealed again by his grandson Stephen. Stephen's uncle, Henry I., who had been king before him, left him a good example in some respects. Although he had exacted heavy taxes, Henry was wise enough to know that the real English, those who formed the strength of the kingdom, were of Saxon blood, and had inherited a love of liberty from their fathers and mothers, and that if he had peace with them he must give them good laws. He re-established those good laws of Edward the Confessor, by a charter, and did other praiseworthy acts, though he was far from what you would call a good king. Henry had men who were accused of crimes tried in a sensible way, instead of by the "ordeal," as it was customary to do before. One of the modes of trial by "ordeal" was to put the prisoner into the water, and if he floated, he was considered innocent, but if he drowned, he was thought to have been guilty! Now, I am sure that if I had to be tried in that way, I should think it very hard, for it would make me out guilty the first time, and there would be no chance for another trial. I have no doubt that the "ordeal" removed many bad men from England, but I fear it took some good ones too. When Henry died, in 1135, "there was tribulation in the land, for every man that could, then robbed another."

King John stands out among the sovereigns of England as one of the very worst. He was a great-grandson of Henry I. Like his great-grandfather, he granted the people a charter; but, as you shall see, he did not do it until he was forced to, while Henry had done it because he was wise enough to see that it would be well with him to do it. In his own time, it was said that "hell itself would be defiled by the presence of John," and it really would be hard to defend him against this judgment. He was a bad son, and rebelled against his father, though his favorite child. He murdered his nephew, Arthur of Brittany, striking him down with his own hands, and then pushing him headlong into the river Seine; and he was one of those who betrayed his brother Richard into a long imprisonment in Germany.

As a king he was no better. From the beginning to the end of his reign he was false and cruel, and no one, not even the highest and noblest, was safe from fines and taxes of the most tyrannical kind. Their only hope was in giving bribes to the sovereign, who, you know, should have been their protector and not their tormentor. There is no country in Europe in which the people are now treated in this way, except Russia. One man actually was forced to pay for the privilege of eating his breakfast!

Geoffrey Fitzpiers, one of the highest officers in the land, heard the king say, "That man watches me lest I should get some of his goods; but so much the more pains do I take to gain them." Fitzpiers said, but not to the king, "Since he is set on my wealth, he will surely get it, but I will raise such a storm as he shall feel for many a day." Sure enough, the king followed his remark by taking ten thousand marks from Fitzpiers; and this led to the "Magna Charta," and I will tell you how.

The great barons of England were many of them furious because they were treated in this way by the king, and Fitzpiers joined them in making a league

was one of the greatest battles of the time. Hurrying home to punish the barons, John heard that his old enemy Fitzpiers was dead, and he said, "It is well; he has gone to shake hands in hell with our primate Hubert. Now I am truly king!" He meant Hubert Walter, who had been Archbishop of Canterbury, and had died in 1205. In this John was wrong again, for the barons did not suffer from lack of leaders. They had with them Robert Fitzwalter, who was known as "the Marshal of God and Holy Church," and Stephen Langton, who had been appointed by the Pope Archbishop of Canterbury in the place of Hubert.



SIGNING OF THE MAGNA CHARTA.

by which they bound themselves to force the king to give them their rights again. They waited until 1214. In that year, John called upon them to follow him to France to fight against the French king. They started, but left him at a certain point in the journey, saying that the terms of their allegiance to him did not compel them to serve him more than forty days. John thought that he would conquer the French first and then go home and subdue the rebellious barons; but he made a wrong reckoning. He was beaten by the French king, Philip II., at the battle of Bouvines, in 1214, and he was glad to escape with his life. It

Langton had already taken up the part of the liberties of the people, by warning the king against his arbitrary course; but John had told him, "Mind your Church, and leave me to govern the State." This had not restrained Langton, and he had pledged his support to the establishment of the charter of Henry I. as the law of the land. This was a modification of that of Edward the Confessor, and combined the old Saxon laws with certain changes that had been made by the Normans. The barons had proclaimed this as the law of the land in 1213, after a council which they had held at St. Albans. Now they solemnly

vowed to conquer or die. There was little need of their vowing this, for they all knew that if they did not conquer, the king would see that they died.

After the battle of Bouvines, John returned to England, as I have said. It was towards the end of October; and about the middle of the next month Langton called the barons together again, this time at Bury St. Edmunds, and they knelt at the altar of their old Saxon saint to swear anew to force the king to deal justly with the people. They all had private wrongs that needed redress, as well as the public grievances, for John had treated them and their wives and daughters in a way so shameful that I cannot even tell you of it. When you are older you will read in big histories all about the bad deeds of wicked kings, if you think that it is worth while.

When John heard what the barons had sworn to do, he fled to London and shut himself up in a place that he thought safe. The barons had drawn up a charter, and they followed him to London to show it to him. It was the sixth of January, and he thought it would be safe to say that he would grant the charter at Easter, for he felt sure that he could raise an army in the mean while large enough to beat Langton and all the barons.

When Easter arrived, the barons met at Stamford. There were two thousand knights, followed by their esquires. I should like to have seen them as they rode about, their armor glistening in the spring sun, their banners flying, and their chargers neighing as they sniffed the air, which must have seemed to be filled with the stimulus of freedom! They had the charter with them, and John, who was at Oxford, sent to see what it was like. When he found out its terms, he was wild with fury, and sent word that he would never sign a paper that would make him a slave. He thought that the king should be able to do what he pleased, and that the people had no rights that he was bound to respect.

John's answer roused the whole country, and the wretched king found himself powerless before the anger of the nation that he had wronged. He had been so wrathful that he had even issued a proclamation calling upon all who supported him to "reproach" all who held with the barons, by pointing their fingers at them, I suppose, and calling them names. He was powerless, however, and he said once more that he would sign the hated paper, though he did not speak of it in this way. He said instead, that he was ready and willing to grant the demands of his "loving subjects" whenever they should appoint the time and place. They appointed the fifteenth of June as the time, and the Meadow of Council, or Runnymede, as the place.

"In this Council Meadow," says Charles Knight, "king and earl had often met in solemn witan before the Norman had planted his foot on the island. A great mixed race had preserved the old traditions of individual liberty which belonged to the days before the conquest." These, he adds "would, practically,

be the inheritance of generation after generation."

To this meadow, consecrated to freedom by ancient associations, which lies off the Thames below Windsor, came John with a small train of twenty-four bishops and nobles in their armor and robes. Of this small number there were but two who really wished success to the king. The others were heart and soul on the side of the barons.

The king encamped on the left bank of the river, and men from each of the contracting parties met on a little island between the hosts. It was not a time for discussion, for the only arguments that would avail on either side were power and force, and the king had already given way to them. The king almost immediately took his pen and wrote his name on the charter, and said, as his great-grandfather had said, that he did it on account of his pious regard for God, and his desire to benefit his people, though we know that he did not entertain any very pious motives at the time.

The Magna Charta was, as some one has said, the first great public act of the nation after it had realized that it was a nation,—the completion of a work for which they had been laboring for a hundred years. It has been the foundation of English and American liberty ever since. You will learn, as you read history more, that it grew out of another great struggle among the forests of Germany. Let us see what it amounts to.

It begins by saying that the king grants these rights to his subjects "for the health of his soul," which means, to save himself from losing his kingdom. The charter then proclaims the liberty of the church and the liberty of the people.

"No freeman," it says, "shall be seized, or imprisoned, or outlawed, or in any way brought to ruin; we will not go against any man, nor send against him, save by legal judgment of his peers."

"To no man will we sell, or deny, or delay right or justice."

"No scrutage or aid—taxes—shall be imposed in our realm save by the Common Council."

Judges' courts were to be held at certain fixed times. Even the women were thought of, and the king was no longer allowed to make rich widows marry his friends, so that he might get some of their money. But the best thing in the Magna Charta was that it protected the poor. It was declared that no man whose goods were forfeited should lose his means of making a living. The freeman was to keep his "contentment," or tools, the merchant his merchandise, and the villain, or serf, his "wainage"—his oxen, plough and wagon. Foreign merchants might travel in England, and sell and buy as they pleased; and the towns were to have and use "all their liberties and free customs."

So a council of twenty-four nobles was then chosen to watch this king whom no man could trust, and to make war upon him if he broke his compact.

After the charter was signed and sealed, it was published throughout England, and sworn to at every town-mote. The barons rejoiced, and Robert Fitzwalter wrote letters calling upon the knights of Eng-

land to come with arms and horses to a great tournament, at which the prize was to be a large she-bear.

King John had laughed and joked while he signed the paper; but as soon as he was safely back in Windsor Castle, he gave vent to his rage. "They have given me twenty-four over-kings!" he cried, as he rolled on the floor, swearing, and biting straws and sticks like a wild animal.

During the rest of his life, only little more than a year, he tried in vain, by the help of the Pope's curse and by foreign soldiers' swords, to escape from these "over-kings," who would not suffer him to go back to his old habits of forcing money from Jews by pulling their teeth, carrying off and poisoning young girls, starving women and children, and crushing old priests under copes of lead. It was in a last attempt against his people's freedom that he saw his baggage, with the royal treasure, his crown, and the provision for his army, all swept away by a sudden rising of the tide. A few days later he died in Newark, saying, "I commit my body to St. Wulstan and my soul to God," — the God whose laws he had rebelled against for so many years.

His son, Henry III., was crowned soon afterwards, and immediately made to swear to maintain Magna Charta, which was from that time the foundation of English law.

Thus was accomplished the great work of the English barons of the twelfth century. They had asked for nothing more than justice, and they were to be contented with nothing less. And in forcing this justice from their kings they had acted in the spirit of that advice which we have all read in "Tom Brown at Rugby:"

"As to fighting, keep out of it if you can, by all means."

"If you do fight, fight it out; and don't give in while you can stand and see."

Those who wish to read more about King John will find one phase of his character displayed in Shakespeare's play bearing his name; and the following list of histories will help them further: Dickens's "A Child's History of England," chapter xiv. Green's "Short History of the English People," chapter iii. Green's "Larger History," book iii., chapter i. Knight's "Popular History of England," chapter xxiii. Hume's "History of England," chapter xi. Hallam's "View of the State of Europe during the Middle Ages," chapter viii., part 2. Stubbs's "Constitutional History of England," chapter xii. These are given in the order in which it will be found most profitable to read them.

WAYS TO DO THINGS.

I.—KNOTS, HITCHES AND SPLICES.

BY CHARLES R. TALBOT.

WHEN I was a boy (which was not so very long ago), it was my fortune, one time, to make a trip from Bristol, Rhode Island, to New York, as a sort of working passenger in the sloop *Resolution*, Captain Israel Northup. One morning the captain called out to me from the wheel to bring aft a bucket of water, at the same time pointing to a wooden pail that stood on the deck near me. I therefore made fast (as I thought) to the handle of the pail the end of the peak halliards and dropped it over the side. It filled readily enough, and I was carelessly pulling it up again, when suddenly, to my great chagrin, the knot that I had made untied itself, and away went the pail drifting rapidly astern.



FIG. 1.—ANCHOR-BEND.

"The next time you throw a bucket overboard," said he, "you'd better make it fast with an Anchor-bend."

Then in the kindness of his heart he sat down on the rail beside me and gave me a practical lesson (afterwards several times renewed) in the matter of rope-tying.

"There is some things about ropes that a boy *must* know to be wuth anything at all," observed he. "An' there mought be times when a man would give all Cuby ter know how ter tie two ropes together so't they'd *stay*."

Believing that these words of Captain Israel are worth heeding, and wishing, so far as is possible in an article like this, to do for other boys what

the worthy old sailor did for me, I shall ask the readers — both boys and girls, mind you — to take a rope and practise, according to the following directions, some few of the most important knots, hitches and spllices.

The first thing to be sure of is the right way to fasten together two pieces of string or rope. That is a thing that some of us have to do twenty times a day; and it is quite probable that twenty times a day we do it wrong. Suppose that you wish to lengthen your fish-line, or add another ball to your kite-string:



FIG. 2.—THE WRONG WAY.

how will you do it? Shall you lay the two ends side by side and then twist them together into a knot just such as your sister would make in the end of her thread, as is seen in Fig. 2?

If you do, you may fairly expect that your fish (if you hook him) will get away with the main part of your line, or that presently your kite will go skurrying off to northward far out of your sight, until you find it again, half an hour later, after a hot chase, hanging tangled and torn in one of the trees of farmer Applewood's orchard. Such a knot is at least as likely to slip as to hold, and, if tied in a rope, is liable sooner or later to cut the rope, because the strain is at right angles. What

is really wanted is a Square-knot (Fig. 3, *a*).

Take the two ends and tie them together exactly as you would tie a "hard-knot" in your shoe-string. Only you must be careful and not tie a Granny (Fig. 3, *b*).

One may slip, the other won't.

Fig. 4 is a Becket-hitch, the proper knot for joining a large and a smaller rope. It will be useful, for example, when the keleg-

line of your boat is too short, and the only line at hand to bend on to it is a stout piece of hemp twine.

A loop at the end of a rope—that is, a loop that will not draw up—is another knot that has frequently to be made. And yet few people know how to make it. I know a very bright young fellow living out at the Highlands, who the other day made a loop in the end of a rope which he *knew* would not slip, and then, squeezing it over his dog's head, tied him to the kennel and went off to school by himself. But the loop did slip, and poor Don almost choked to death before his plight was discovered. What is wanted in such a case is a Bowline.

Make a bight near the end of your rope, as in the first cut of Fig. 5. Seize this with the left hand at *a*, and then with the right hand pass the end *b* up through the bight, around behind the main part of the rope at *c* and down in front of it through the bight again as in *d*. Draw this tight and you have the much-talked-of Bowline. It is a very simple matter, as you see; but with it you can make a slip-

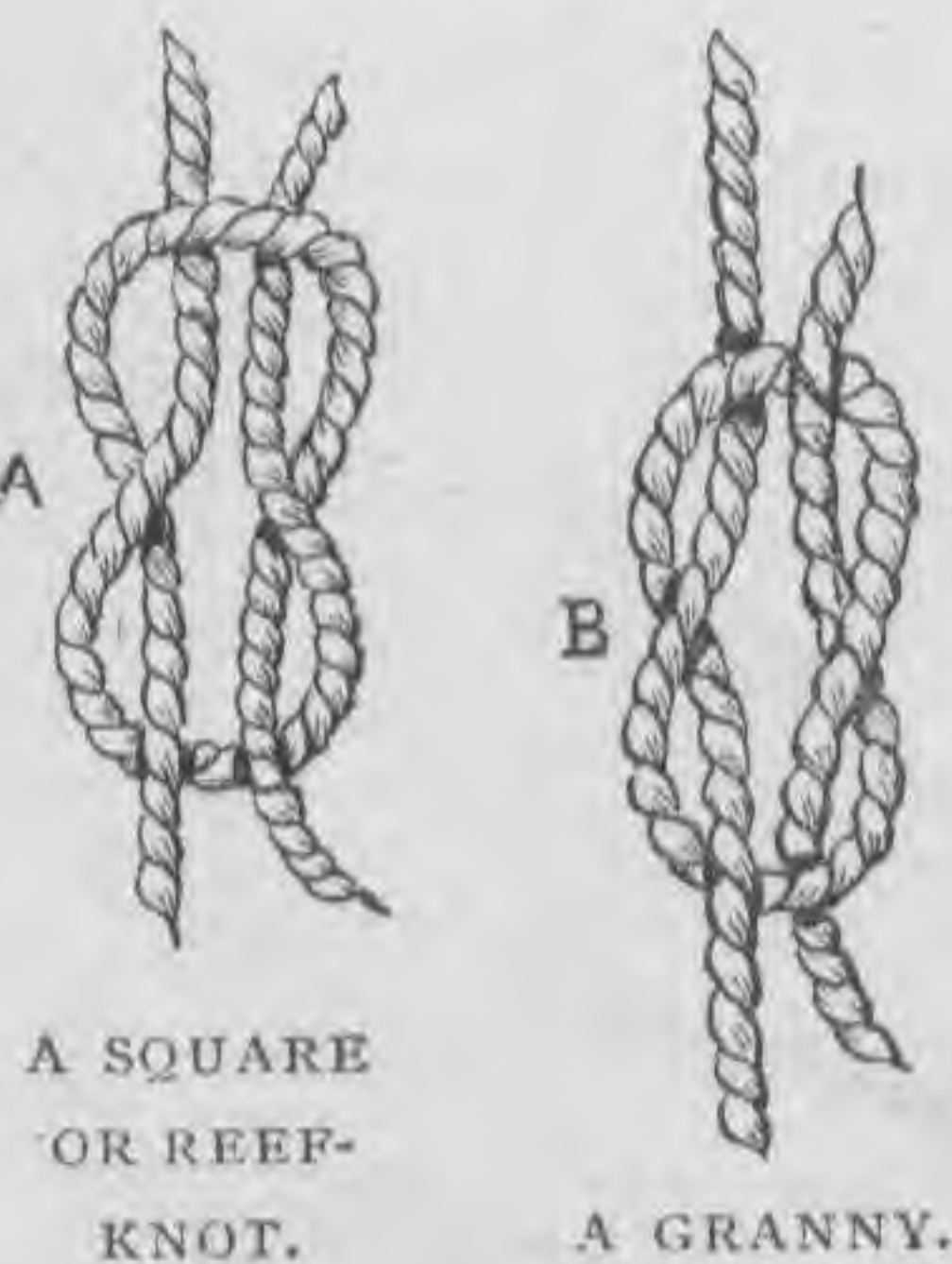


FIG. 3.



FIG. 4.—A BECKET-HITCH.

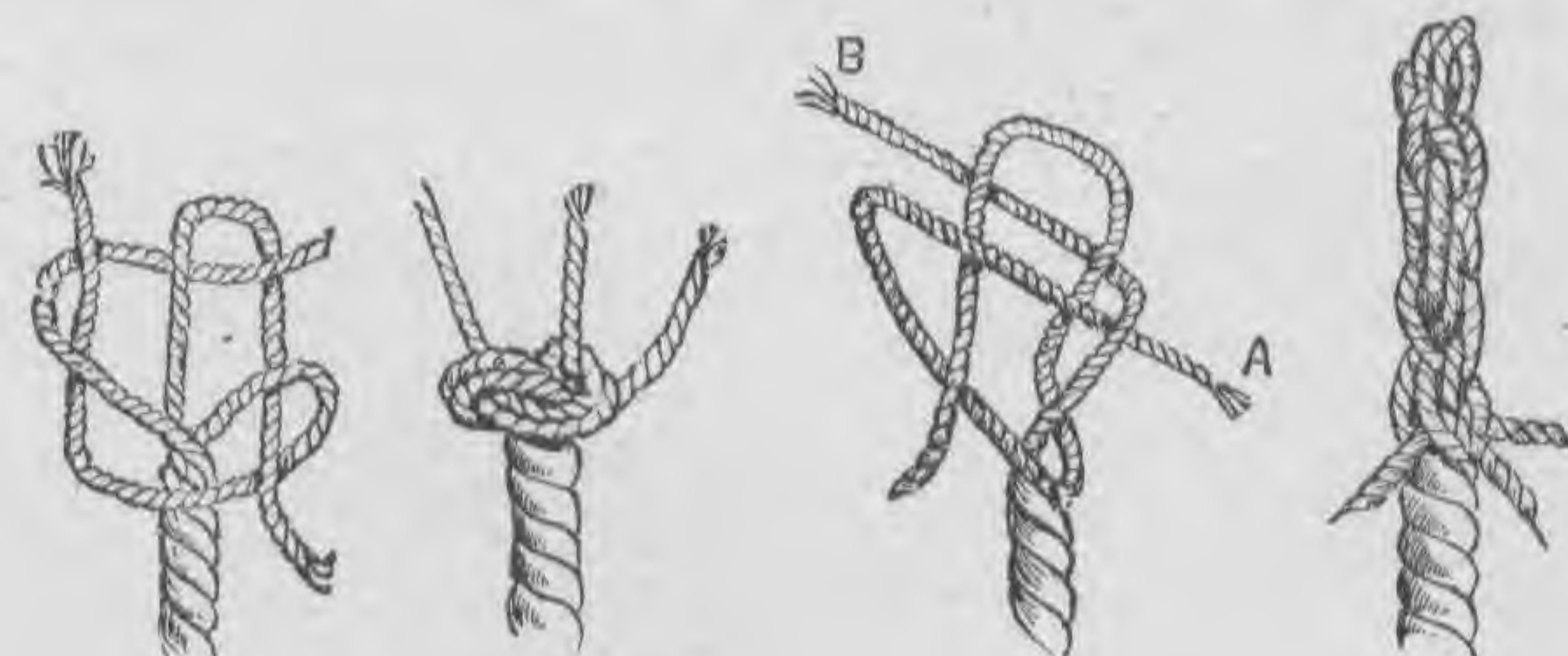


FIG. 6.

FIG. 7.

FIG. 8.

FIG. 9.

pet pony or the bleating calf out to feed upon the fresh grass.

While speaking still of the ends of ropes, let us stop and learn to "fasten them off" properly to prevent their untwisting or fraying out. The painter or main-sheet of your boat, Bridget's clothes-line, your little sister's jump-rope, and indeed *any* rope whose end is not (like the Irishman's) cut off altogether, may need such treatment. The simplest method is to "serve" or wind the end with small twine. A Single-wall (Fig. 6), or a Double-wall (Fig. 7), is better. But better still is the Boatswain's-whipping, formed by making an inverted single-wall and then splicing the ends back over the rope itself (Fig. 8 and Fig. 9).

The most elegant of all such, however, is the Stopper-knot, seen complete in Fig. 14.

Place the end *a* as in Fig. 10, holding it with the thumb at *d*; pass *b* around under it, *c* around under *b* and through the bight of *a*, and pull tight; this forms

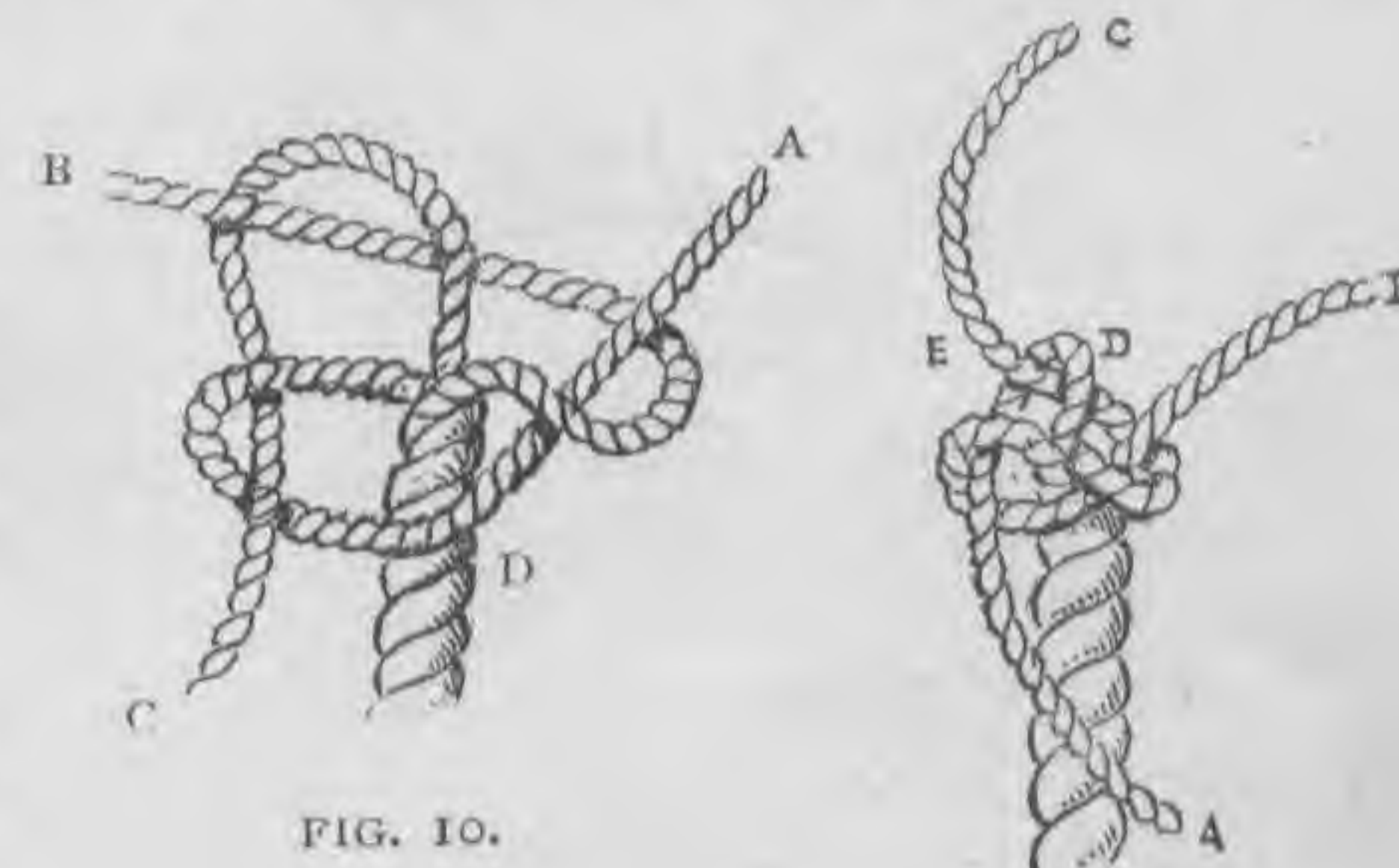


FIG. 10.

FIG. 11.

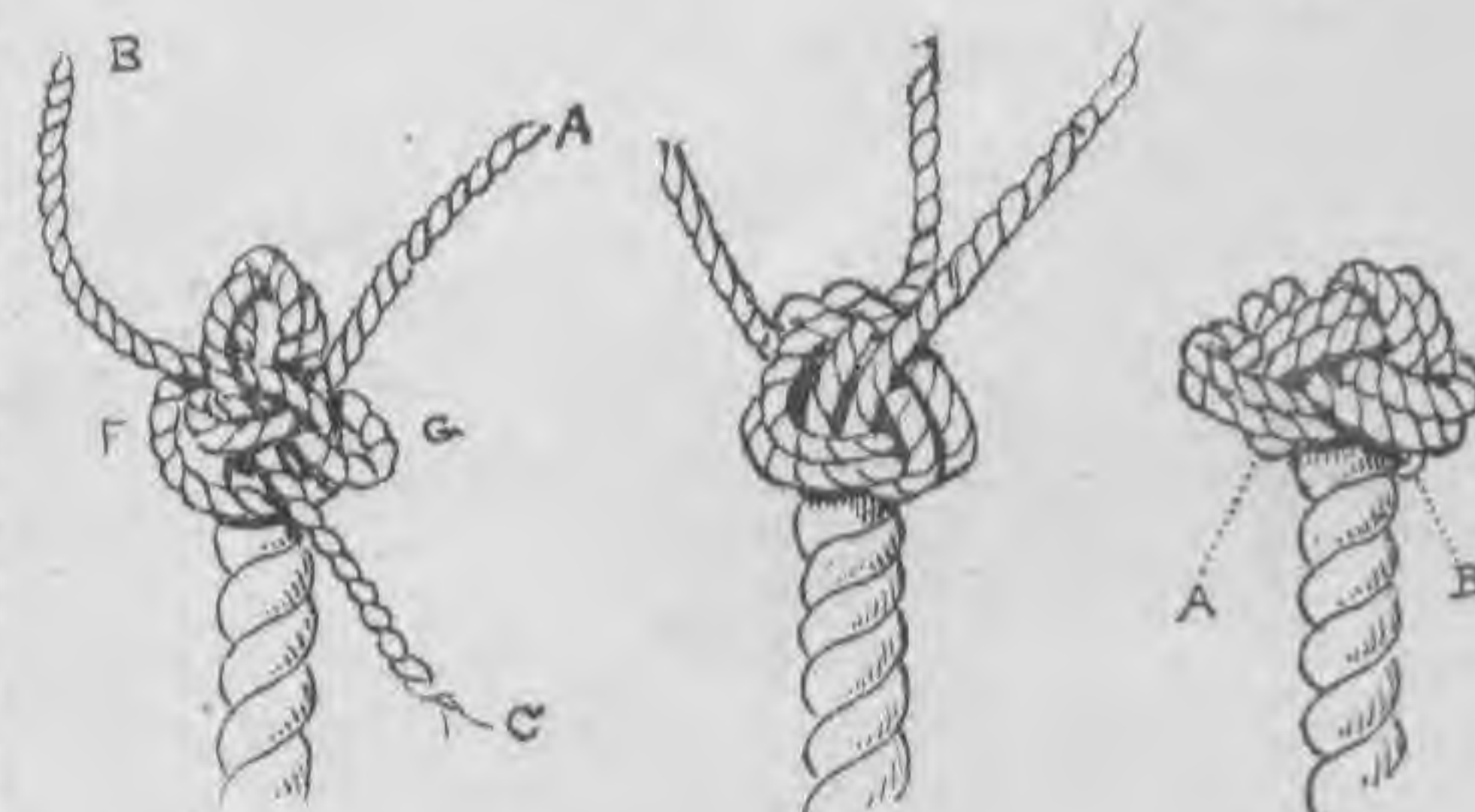


FIG. 12.

FIG. 13.

FIG. 14.

THE FIVE STEPS OF THE STOPPER-KNOT.

a Single-wall (Fig. 11). Now lay *a* over *d*, *b* over *e*, *c* over *b* and through the bight of *a*, and draw tight (Fig 12).

Next pass *b* down around *f* and up through the

FIG. 5.—THE BOWLINE.

noose that will give

you no trouble in lacing up

bight *g*, and do the same with *a* and *c*, forming Fig. 13.

Then pass each strand by the side of the strands in the crown down through the walling to form the "double-crown," and cut close the ends *a*, *b* (and *c*), producing Fig. 14.

A Sheepshank (Fig. 15) is a knot by which a rope may be made shorter, or (as a young yacht-woman of my acquaintance recently expressed it) "a tuck taken in it." If the tide has come in and you wish to shorten the mooring-line of your boat, or if the line by which your

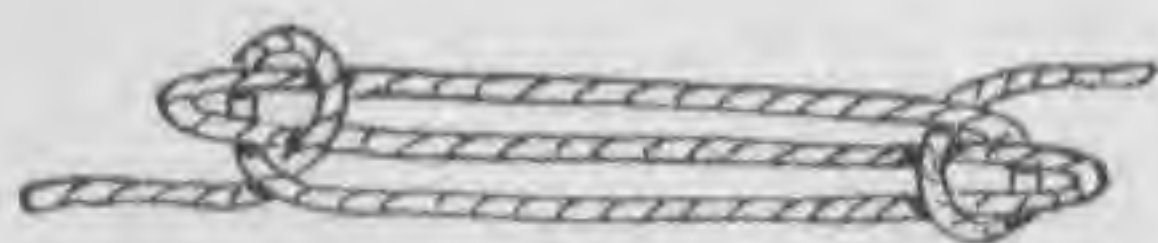


FIG. 15.—A SHEEPSHANK, BEFORE IT IS DRAWN TIGHT.

campaign flag is suspended across the street is too loose, or your clothesline, or your swing, has sagged frightfully, the Sheepshank will gather up the slack for you and hold it firmly.

When one wants to make an artificial handle for an old jug or some other vessel, the True-Lover's knot is used, as seen in Fig. 16.

Tie two loose knots, *a*, *b*, as in the first cut of Fig. 17; pass the bight *a* through the opening *f*, the bight *b* through *g*, pull the loops equal, and, to complete the knot as in second cut of Fig. 17, join the ends *c*, *d*, by a long splice at *e*.

The Jar-sling, seen in Fig. 20, serves a similar purpose.

You are out picnicking, perhaps, and you suddenly find it desirable to convert an empty gherkin bottle into a swing-vessel in which to take home alive some tadpoles or minnows. In a long piece of cord make a large loop as in Fig. 18, and hold the bight against the standing parts, *a*, *a*; pass the thumb and forefinger of the other hand down through *c*, lay hold of *b* where the crook of the imaginary wire is seen, and draw it through *c* down a little below *a*, *a*, as in Fig. 19, *d*, and hold it there. Now pass the thumb and forefinger down through the opening *e* (in the way the wire goes), lay hold of *g*, and draw it up through *e*, forming the complete knot as in Fig. 20.



FIG. 16.—THE TRUE-LOVER'S KNOT.

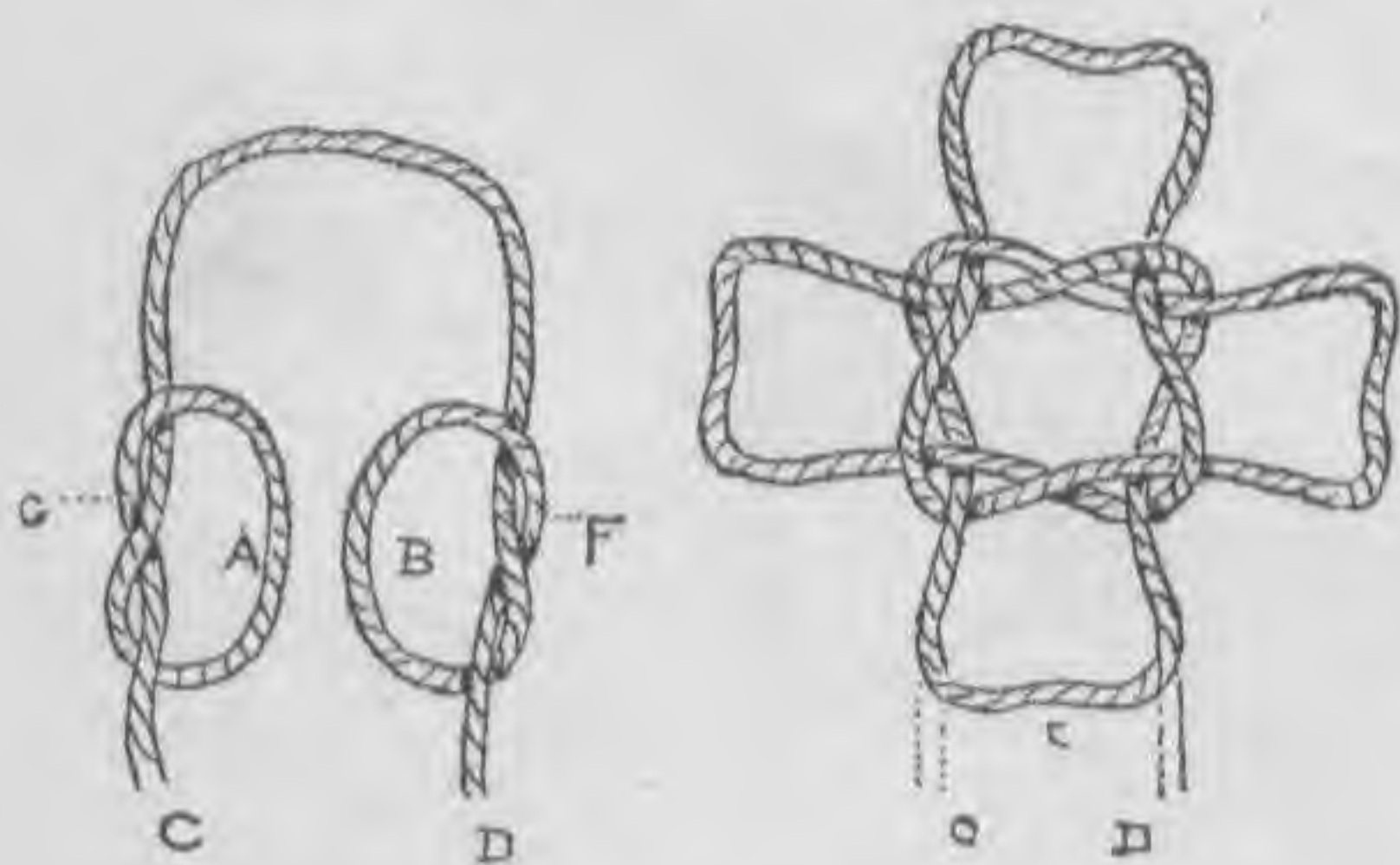


FIG. 17.

Turk's-head (Fig. 23), remains to be described before we pass to the briefer subject of hitches. Take a long piece of fishing-cord, place the end *a*

against the forefinger, wind the cord around the two fingers and hold it with the thumb, as in Fig. 21.

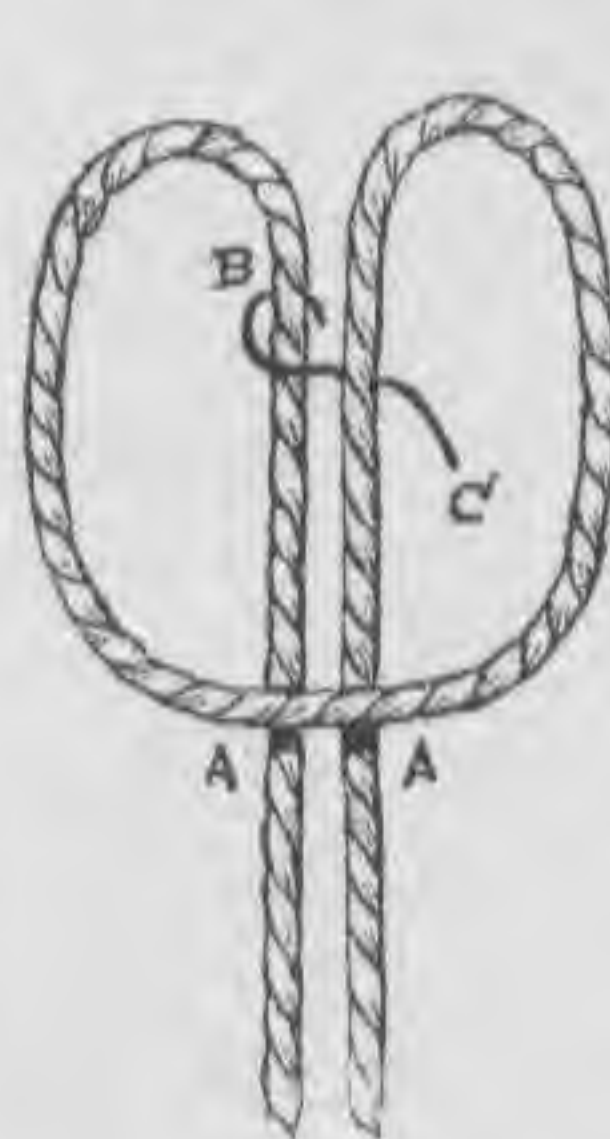


FIG. 18.



FIG. 19.

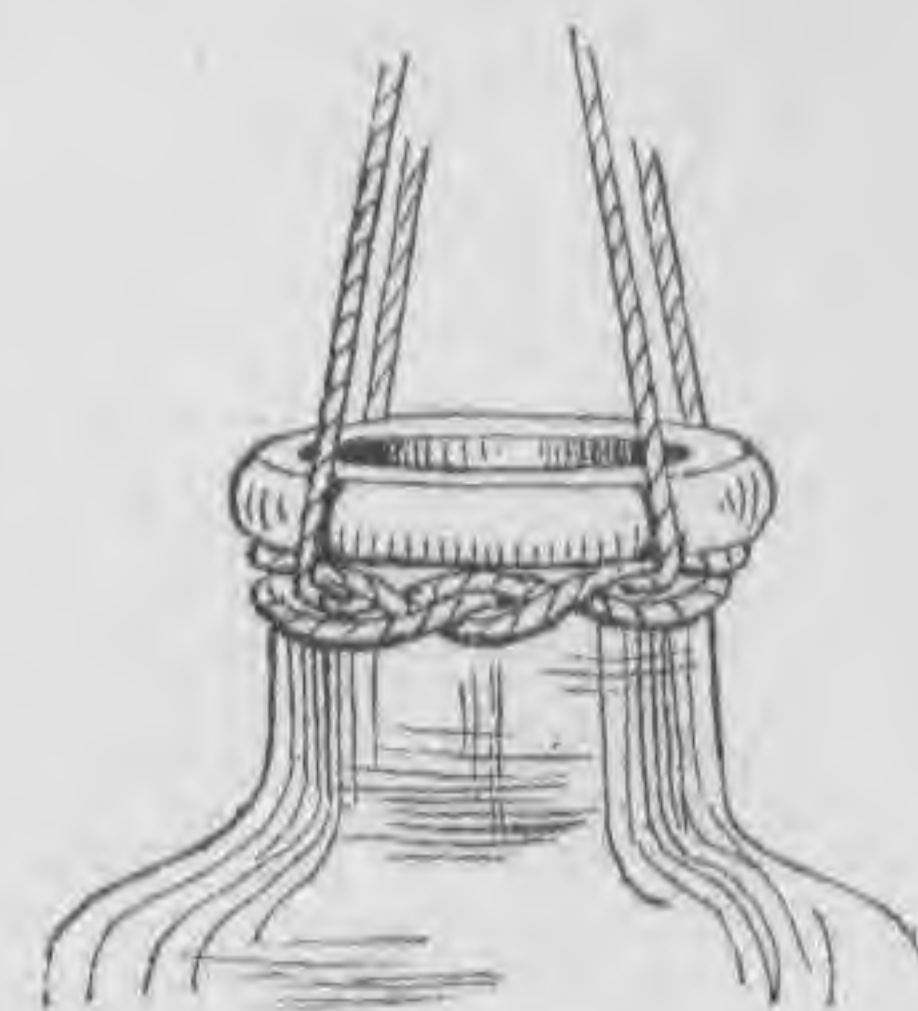


FIG. 20.

Now with the other hand lay the part *b* over the part *c*, and while in that position pass the end *a* down between them, over the first crossing, under left strand, up between, over second crossing, under right strand, up between; take the hitch off your fingers, and it will be as in Fig. 22.

Next pass the loose end through the opening *d*, laying it against the cord *a*; then with it follow that strand (*a*) over and under, over and under, until you have a complete plait of three cords. Pass the knot over a stick to make it taut, and cut the ends close.



FIG. 21.



FIG. 22.

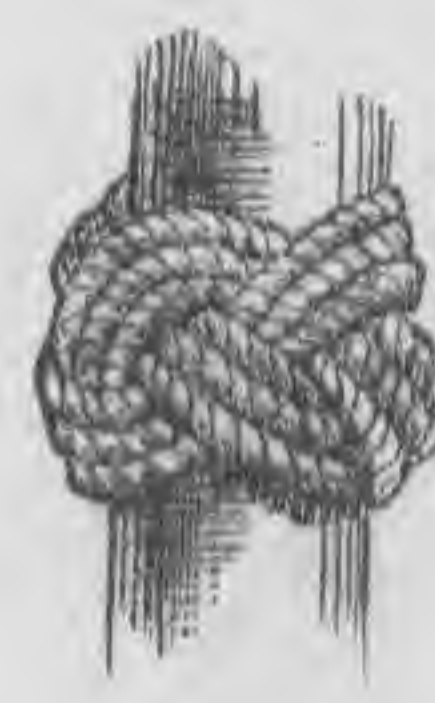


FIG. 23.

The Turk's-head knot, like the two preceding it, will tax your precision, deftness and patience, and is an ornamental rather than a useful knot. You may weave one from wire or cord about the handle of your cane or riding-whip, or you may pull a few hairs from old Dobbin's tail and make them into a very pretty horse-hair ring for your cousin Fanny when you two are out driving together along the forest road.



FIG. 24.—TWO WAYS OF FASTENING A WEIGHT TO A LINE.



FIG. 25.—TO TIE A SHORT LINE, TO WHICH A HOOK IS ATTACHED, TO A LONGER OR GROUND LINE.

The knots in Figs. 24, 25 and 26 explain themselves; they are often useful to picnickers and campers-out.

Hitches are no less *knots* than any of the foregoing; but they are knots used to fasten the end of a rope to any object in such manner as to be easily cast off when no longer needed. They are few in number, and all very simple and easily described.



FIG. 26.—
TO FASTEN
A LINE TO
A FISH-
HOOK.

A Blackwall hitch is merely a loop thrown about a hook, as in Fig. 27, in such a way that the main part of the rope, *c*, being pulled downward, the part *a* jams the part *b* against the hook so firmly that while the strain is kept up the knot cannot possibly slip. Sailors use this hitch very frequently, but it can be used on land as well as at sea. If you have retreated, in a game of "Chase," to the topmost branch of the oak-tree on the lawn, and have a rope in your hand just long enough to reach the ground and no longer, just make, in a single instant of time, a Blackwall hitch in the crotch of the limb, and, if you dare trust yourself to it, it will take you to the ground in perfect safety, long before your pursuer can climb down again by the way he came up; and you can carry off your rope with you.

Or possibly you might be "up a tree" in a different way. Old Tibbetts, your father's gardener, not daring to trust himself away from mother earth, has sent you up into the elm tree to saw off for him the limb that is growing too near the house. But that limb must not be allowed to come crashing down; and so, with the rope you have taken up with you, you cast about it, while you saw, a Timber hitch, shown in Fig. 28.

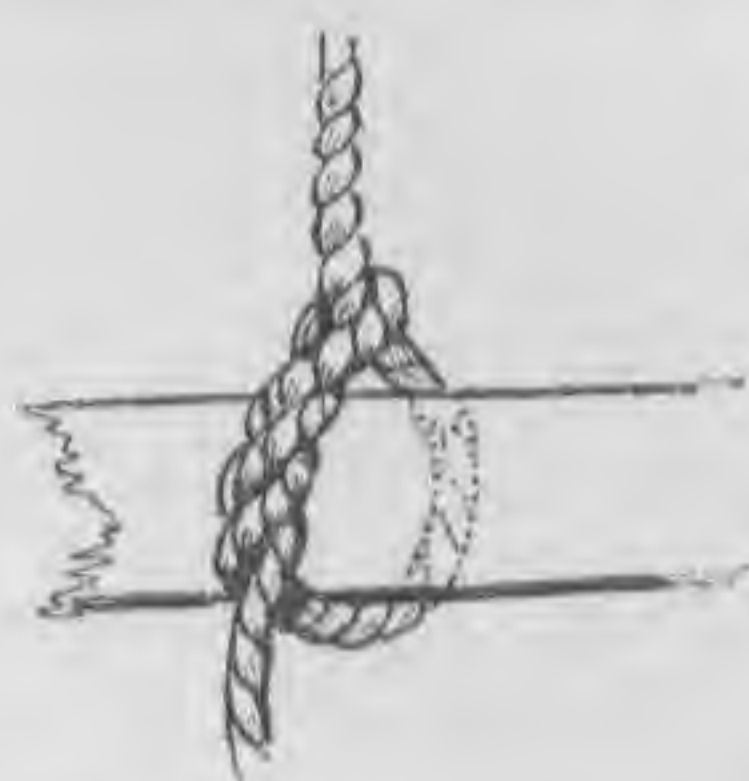


FIG. 28.—TIMBER
HITCH.

Of all hitches, however, the one which any man or boy can least afford not to know is the Clove hitch. Make two bights or loops, as in Fig. 29; hold them between the thumbs and forefingers at *a*, *b*; slide the left loop over the right loop; then slip the double loop thus formed over the table-leg, or your brother Willie's finger, or anything that will represent a post, and draw tight by the end (Fig. 30). Practise this until your fingers can do it swiftly and of themselves, just as your tongue can say the alphabet; for a Clove hitch, when it is used, needs to be made quickly and handsomely. I once saw a young cadet from Annapolis, who had been out on a sailing party with some ladies and had jumped ashore with a rope, hesitate at least half a minute before he could think how to make the proper knot, while a number



FIG. 27.—BLACK-
WALL HITCH.



FIG. 29.

of old sea captains sitting by were watching him and laughing among themselves. A Clove hitch may be used, too, when, while out fishing, you extemporize an anchor by tying a rope to a stone. And in Fig. 31 you see again how this knot, *e* (with a half-hitch, *f*, in front of it), is used to tow a floating spar or drag a piece of timber across the field.



FIG. 30.—THE CLOVE
HITCH.

Two other hitches, a Rolling hitch and a Cat's-paw, are shown in Fig. 32. Splicing is a process by which ropes are joined together so as to leave no knot. I appreciated its importance the other morning when I saw an intelligent man of fifty work for an hour to splice a hammock rope. Where it is not specially important that the joining be a very nice and smooth one, the "short" splice is used. It is made by passing the strands of one piece in and out between those of the other. The short splice always leaves the spliced part thicker and clumsier than the rest of the rope. If it is desirable that the joining be a very neat one, so as to admit of the rope's running readily through the sheave-hole of a block, the "long" splice is necessary. This is made by unwinding each end about two inches, placing the strands as in the short

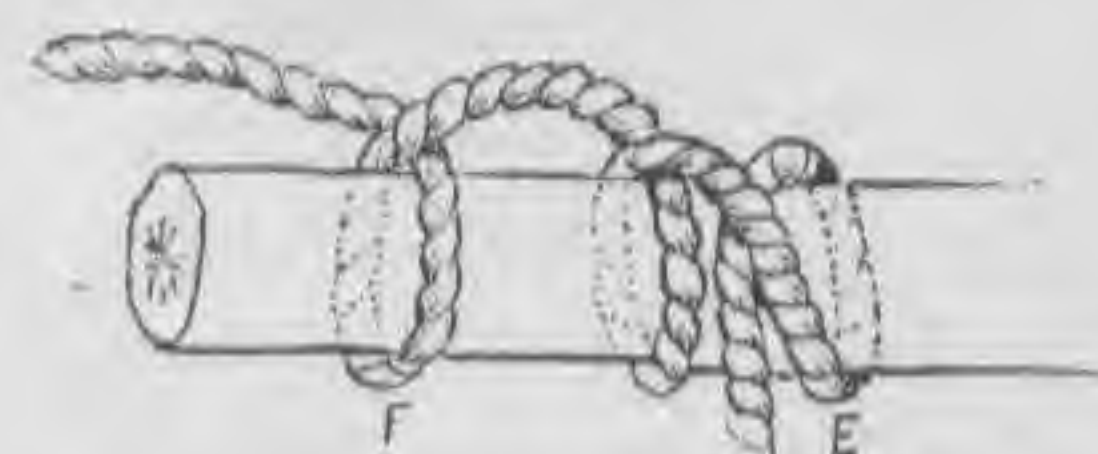
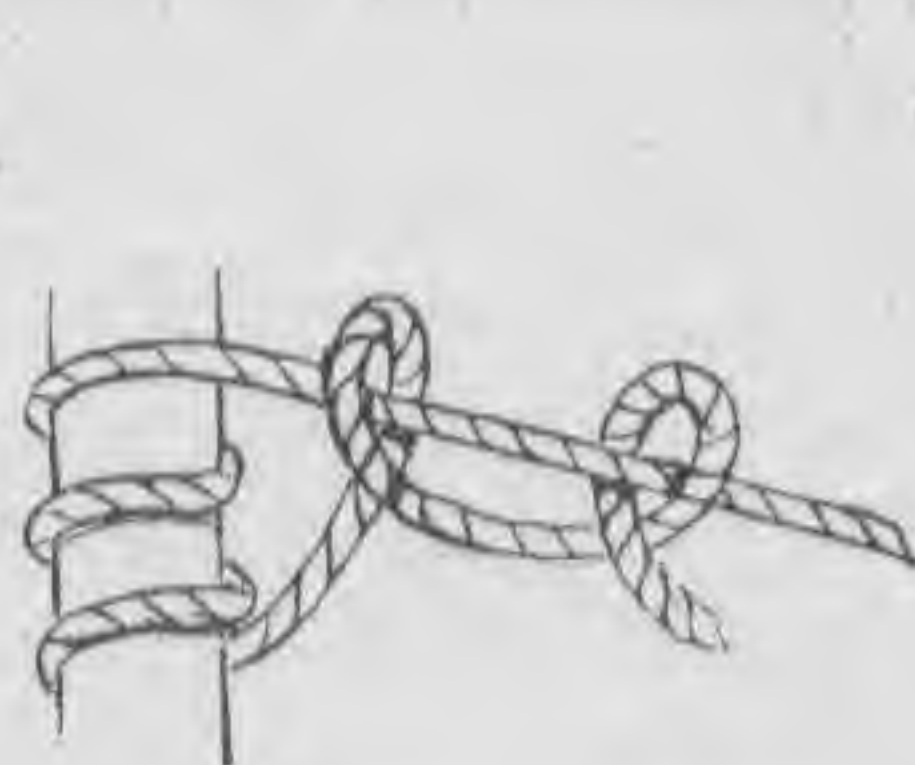


FIG. 31.—FLOATING SPAR.



A ROLLING HITCH.

FIG. 32.



A CAT'S-PAW.

splice, then unwinding one strand further back, and winding the corresponding strand of the other piece in its place; proceeding in the same way with the other strands, and then fastening the ends in such a

way that it is almost impossible to detect the splice. We have not space to describe here the exact mode of procedure; but there is scarcely a town or village anywhere but has its "old sailor," and there is no old sailor anywhere but will be glad to come and give you all a lesson in splicing.



FIG. 33.



FIG. 34.

A splice that you can very easily learn for yourselves, however, is the Eye-splice. First make



FIG. 35.

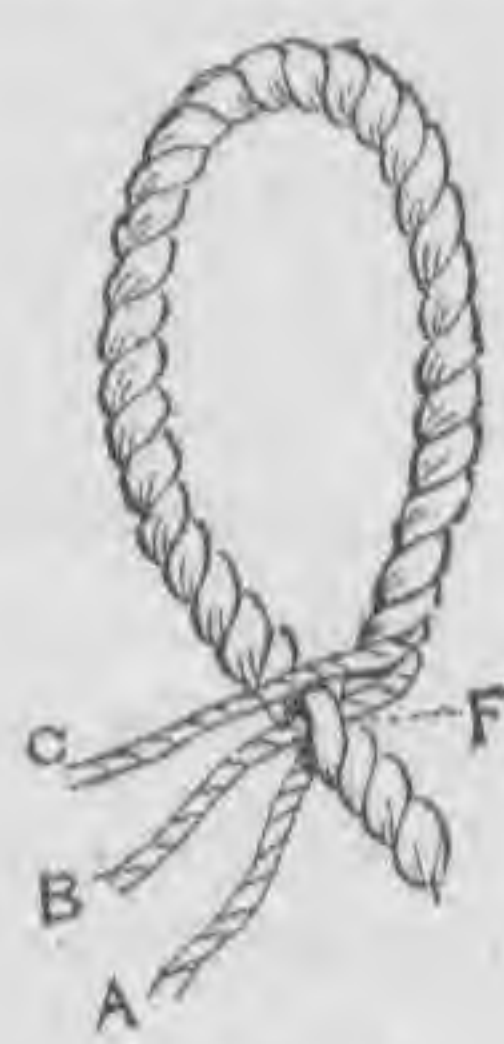


FIG. 36.



FIG. 37.

I have found that the half of a clothes-pin, so treated, answered the purpose exceedingly well.

yourself a marling-spike — if you have not the genuine article — by whittling down to a point a piece of hard wood. Then take a piece of good three-strand rope, unwind the strands, and place them as you see *a, b, c*, in Fig. 33. Open the strand *d* and pass *a* through it, as in Fig. 34; then open *e* and pass *b* over *d* and under *e*, as in Fig. 35. Turn the eye over, Fig. 36, open *f* and pass *c* through it, as in Fig. 37, and pull the strands tight. Now pass *a* over the strand next it, under the next one, and so on with the others. Proceed in the same way until the splice is about an inch long. Then stretch the eye (holding by the rope) to tighten everything, and cut the ends close. If you will make a neat Eye-splice all by yourself and take it to the old sailor aforementioned, he will be sure to think it worth while to teach you all he knows, and he will be likely to tell you many things about knots, hitches and splices which are of necessity omitted here.

OLD OCEAN.

BY ERNEST INGERSOLL.

NOTE. — This series of papers should be read with a globe and good maps at hand; as thus the geographical descriptions can be more fully realized and fixed in the memory.

I.

146,000,000 SQUARE MILES OF WATER.

OFTEN things familiar to us present an entirely different picture if only we change our point of view. I used to know a boy who, whenever he had gazed for a time at a bit of landscape, would turn his back upon it, bend over, and try how it appeared seen from between his feet. The effect was certainly very novel. Suppose, now, we take a globe, or a map of the world, and, neglecting the continents, whose outlines are well remembered, study the area occupied by water. I warrant you a new impression of our globe will be forced upon us. Very likely we never before have really appreciated the vastness of this vast, blank, intervening space between the lands. Spread out a map of the whole world, stand back and look at it. The largest continents become simply islands; the great islands dwindle to islets, and the little ones disappear altogether—

“ . . . and, poured round all,
Old ocean's gray and melancholy waste.”

Looking at the land, we divide the surface of the earth into eastern and western hemispheres; but looking at the water, we make an opposite classification. Encircle the globe in your library with a rubber band, so that it cuts across South America from about Porto Allegre to Lima on one side, and through southern Siam and the northernmost of the Phil-

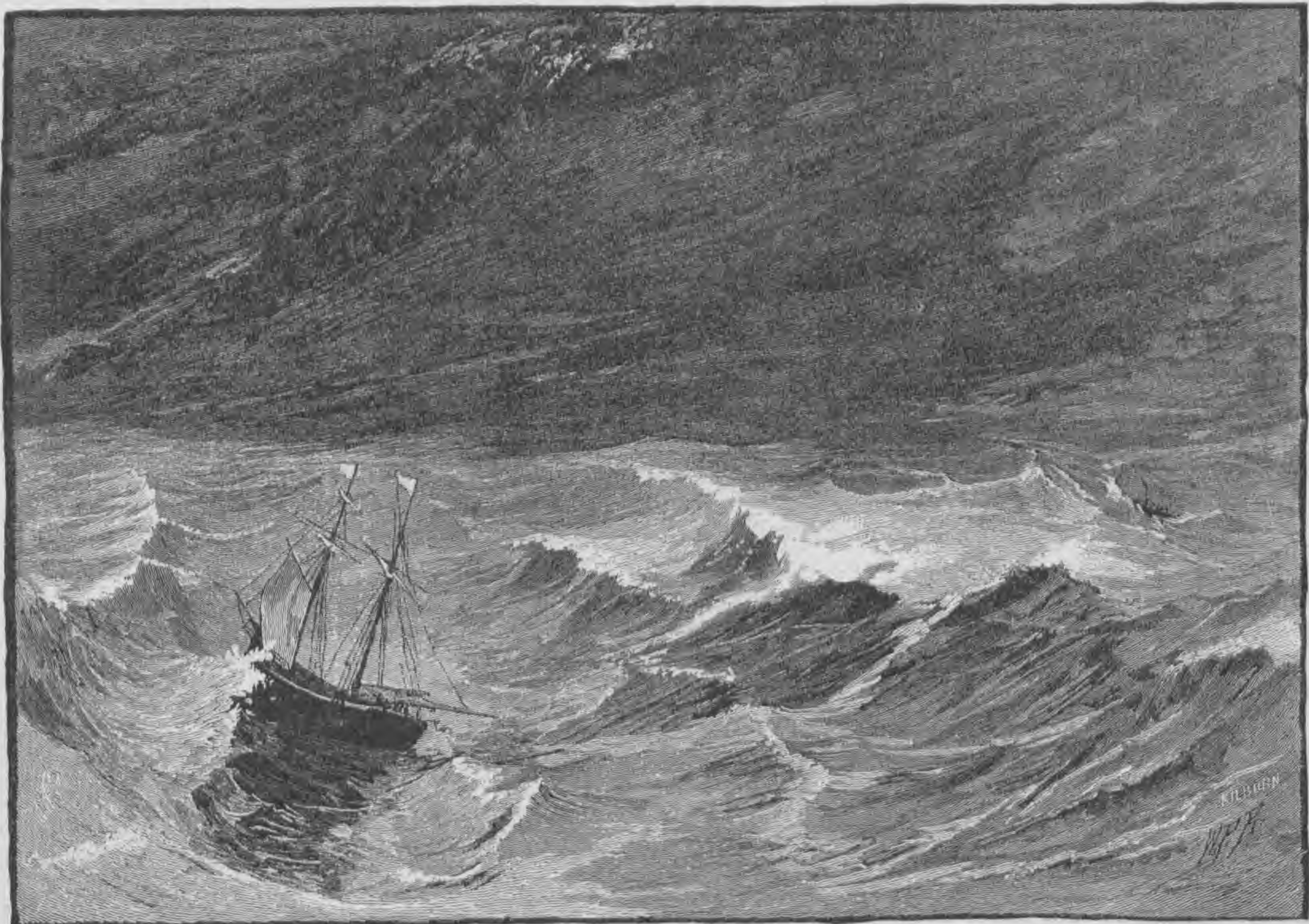
ippine islands on the other, and you make hemispheres, the northern of which (with London at its centre) contains almost all the land of the globe, while the southern is almost entirely water, Australia and Patagonia being the only lands of consequence in its whole area. Observing the map in this way, noticing that, besides nearly a complete half-world of water south of your rubber equator, much of the northern hemisphere also is afloat, you are willing to believe my assertion that there is almost three times as much of the outside of the earth hidden under the waves as appears above them—one hundred and forty-six million square miles of endlessly restless surface.

But in bulk, as well as in space, the ocean is mightier than the land. There are very few mountain peaks whose topmost pinnacles tower as high above the tide-level as incredibly wide areas of ocean bottom are sunk below it; and, while the great majority of land everywhere is only a few hundred feet above the surface of the sea, the *average* depth of the Atlantic is over ten thousand feet, and that of the Pacific and Indian oceans even greater. If, then, Nature were to plane down the earth with its mountain-ranges, in order to fill the ocean-valleys and make a perfectly smooth surface all over the globe, she would find it needful to dig away all the dry land of the globe, and also much which is submerged; and then salt water would cover everything with a uniform depth of more than a mile—just as I think it used to. That was long ago. Though we speak of ancient rocks and everlasting rivers and hoary mountains, the ocean is older than any of them—older than anything else, except, perhaps, the atmosphere, which is the ocean's

mother. Many scientific men believe that when our planet first went circling swiftly in its orbit it was a glowing mass of molten, mixed-up metals, minerals and gases, which only held its shape because it was spinning so rapidly and racing on with such speed that no one particle of it had time to get the start of any other. They believe it was enveloped in thick masses of fiery vapors, and if there was any solidity about it anywhere, it certainly was not near the surface. But as time went on, the icy chill of space cooled these vapors slowly down; and all the time chemical changes went on within their masses, bringing this and that element together and separating others;

core of the half-hardened planet and the dense clouds which kept out all the sunlight, there rolled the heated waves of the first ocean — an ocean not only shoreless from pole to pole, but boiling hot, and sending up ceaseless volumes of steam.

Yet all the while the cooling of the planet went slowly on, and presently a crust or skin like the leather covering of a ball formed over the hitherto almost fluid surface of the mass. Now when any heated substance cools, it contracts. The world, being of huge size, contracted on a large scale; and as the cooling went on faster in some parts than in others, and unequally at various seasons, and was disturbed by explosions



OVER THE EVER-RESTLESS SURFACE.

causing some gaseous materials to make their way towards the centre and others to seek the outside, until, finally, *water* came into existence.

After that — let us picture it — what deluges of rain were poured out of and down through those murky clouds where thunders bellowed and lightnings warred! At first, all the rains that fell were turned to steam again, as would be a cupful of water thrown into a blast furnace; but by and by the steady down-pour cooled the shaping globe so that all the water was not evaporated, but some stayed where it fell, and this increased in amount more and more, until finally, between the hissing

and swelling from underneath, the contraction was highly irregular, and produced great cracks and ridges. These were most prominent around the North Pole, as is shown by the fact that the land of the globe is mainly grouped around that pole, and their range was in general north and south lines. Such were the results of contraction upon this first weak crust of the earth; those parts which were stiffest resisting contraction, or simply bulging up, while great areas of thinner crust sank inward. Into these huge depressions which were constantly changing, but with less and less frequency, as the warping heat continually decreased, poured the wide waste of

waters, the ridges between forming the earliest shores of this black primeval sea.

How different from these beliefs of scientific men are the fanciful notions about the ocean in the writings that have come down from the days of those great empires in Egypt and Arabia and Syria; from the kingdom of Phœnicia, the elegant civilization of Greece and the battle times of the Romans. The old Greeks, for example, regarded the earth as a flat space having a circular border, around which there was perpetually flowing a river that had no visible shore. This river was the source of all the rivers and other waters: out of it the sun lifted itself in the morning, to sink into it again on the other side of the plain; the stars, too, rose and set in its flood; and on its further banks, which no one had ever been able to reach, were the abodes of the dead. They also deified this outer water under the name of Oceanus; and when men had travelled a little further and learned that west of Europe and south of Africa there really was a boundless space of water, it was natural they should call it by the old poetic name, Oceanus—the ocean.

The ocean which the Phœnician and the Latin navigators knew almost exclusively—though they must have been somewhat acquainted with the Arabian and African edge of the Indian sea—was that west of Spain and separated from the Mediterranean by the Pillars of Hercules. To this water they gave a special name, the origin of which is explained by another myth.

One of the very oldest and most venerable of the Greek gods was Atlas. The poets told all sorts of stories about him; but whatever else he did, all agreed that he supported on his shoulders the pillars that upheld the sky. These pillars seemed to rest in the western waters, just beyond the sunset horizon. Later on, it was believed among the Greeks that out there, beyond the Pillars of Hercules, lay an island of great extent, yet forming only a passage-way to a vaster continent beyond. Naturally, this unseen island was spoken of as the home of Atlas,—Atlantis, or Atlantica.

But let us return to the early offices of the ocean waters upon this globe of ours. It is certain that the great waters and great lands have remained substantially in their present shape ever since they first became distinct, the first cooling throwing up certain portions which formed a model for the continents, leaving all the rest of the globe in a series of great basins holding water—basins which grew deeper by the steady contraction and sinking of the crust in these the weakest spots.

The moment it had shores to beat upon, that moment the ocean began to knock them to pieces and grind the fragments under its pounding surf. These fragments sank wherever the currents bore them or the water was still enough to allow them to be deposited—sometimes in coarse particles, sometimes in fine silt—and there hardened gradually

into stone, which was arranged in layers or *strata*, and hence is called stratified rock. The primitive or original rock—New England's granite is as good an example of it as you can find—contains in a mixed state all the components of the future stratified rocks. The original rocks held the different forms of lime, magnesia, etc., to make the limestones; the silica to make the gritty sandstones and quartzes; the alumina to make the clays, and so on. The sea not only was the agent to eat this old rich crust to pieces and respread it into strata, but to sort out for us the materials to a considerable extent, laying down beds of limestone by themselves, and sandstone, shales, marl, etc., by themselves.

All this work upon a chaotic world was not done in one way, however. While with sledge-hammer blows old ocean's ponderous waves were crushing exposed points of the coasts, other of its agencies were busy elsewhere. For instance, when dry air comes in contact with water, it soaks up as much as it can carry in that invisible form—*moisture*. But this dampened air, being light, is continually rising, while the heavier dry air crowds underneath to rise in turn with its load of moisture until it reaches a height where the cold is great enough to turn the moisture into drops; then it forms clouds, and by and by these become too heavy and fall as rain. Doubtless you know this process very well already, but I repeat it to make sure of my next point. The atmosphere even now contains a small proportion of a powerful gas known as *carbonic acid*; in those early ages there must have been so much of it that no living thing could have breathed. Now this gas is absorbed by water, and every particle of moisture which the ocean sent up took along a little carbonic acid with it, and so helped to purify the atmosphere and make it fit for plants and animals later on.

But don't think now that the carbonic acid was at that time all nuisance: it had its place in the plan. This acid is almost the only thing that will dissolve certain hard minerals, among them silica, the substance of pure sand, and the various sorts of quartz and gems, and so enable water to take them up and carry them along. The rain, therefore, well armed with the carbonic acid of the thick air, by drop, by rivulet, and by flood, was wearing down the rugged mountains, filling up the gloomy chasms, levelling off the surface of the rough continents, and helping the ocean in sorting out the materials which, later on, should become useful to man as fertile soil, or be sought after as building-stones, as metals for manufacturing purposes, or as minerals precious for their beauty.

Meanwhile, as time went on, the crust of the earth cooled and stiffened more and more until it became so stable that only slight and gradual changes of level took place outside of strictly volcanic regions.

Now I have run the risk of being voted tedious with this bit of geology and chemistry, in order to show how important a part the ocean has played,

and is still performing, in remodelling the world; and also to show that it was done chiefly along the margins, building continents and large islands out at the edges just as fast as they were levelled down over their interiors; so that, from being enormously lofty, narrow and precipitous, they became broad and (for the most part) flat. When you know that the whole vast plains of Hindostan are believed to have been added to primeval Asia, and the broad empires of Brazil and Patagonia to the central stem of South America, think what mighty mountains, to which the present Himalayas and Andes are mere hills, have been cut down to supply materials!

Yet out toward the middle of the sea, hardly even a short hundred miles from the shore, little drifting soil could be carried before sinking, and so we feel sure that no new bottom of consequence has ever been thus formed. The great basins of the sea—what vast valleys, thousands of miles wide and from one to fifty thousand feet deep, they would make if we could see them emptied!—have hardly been altered since creation.

But the ocean, like other architects, did not work for nothing; it took its pay for this big job of hewing a world into good shape in a sort of toll of minerals, which it holds suspended in its flood. The chief of these is salt, which has been dissolved out of the shores and bottom as time went on. Analyze sea-water, and you find that, besides the large amount of common salt (known to chemists as chloride of sodium), various other compounds of salt, lime, and other minerals, classified as sulphates, carbonates, iodides, bromides, and so forth, have been extracted. The lovely greens, purples, crimsons and scarlets painting the wonderful coralines and sea-weeds dragged to light from depths of perpetual gloom, are largely dyed by these compounds.

All these salts together amount to about four parts (by measure) in every hundred of sea-water, and make about one thirtieth of the weight of the ocean. In many parts of the world, all the salt used is obtained by boiling down sea-water in vats; the salt being left in white crystals in the bottom of the kettle when the water is evaporated away.

It was by this means that our great-grandfathers in New England provided themselves with salt; and at certain places on the coast of Maine and New Jersey the practice has been kept up until very recently by fishermen who use a large quantity of salt in curing their fish. These old salt-boiling camps on the desolate beaches were very picturesque affairs, but have about all disappeared now; but they would come back if occasion called. An example of this happened during the Rebellion. There are no salt-wells or mines in the Southern States, and the Confederates were obliged to open factories on the coast, getting all their salt by boiling down the water, after the custom of a hundred years before.

Besides this salt, which makes ocean water much more dense and heavy than fresh water, so an object may float in the former that would sink in the latter, and swimming much easier in the ocean than in a lake, sea-water contains two very valuable metals—gold and silver; and in such quantities that it is profitable to scrape the old copper sheathing of ship bottoms to secure the silver which has formed a film over its surface. Think of silver-plated frigates!—that is what they all are after a long voyage; and somebody has estimated that the whole ocean holds no less than two millions of tons of the shining metal. Silver is now worth about \$1.20 an ounce: it will be a pretty problem for you to see how rich old Neptune would be if he had it all in coins. Then to it you must add his riches in gold, which can be ascertained when I tell you simply that from each ton of sea-water one grain of gold may be extracted, and that the total bulk of salt water on the globe is said to be 290,000,000 cubic miles. These are *average* figures, of course, for the density—that is, the amount of salt, etc., in a given quantity of water—varies in different parts. Deep water is saltier than shallow, because the saline matters sink; equatorial districts saltier than arctic, because of more rapid evaporation there; and the Mediterranean saltiest of all, because, I suppose, it is not only in a hot latitude, but so confined that its waters do not change as freely as they do outside. There are springs of mineral water, and even of fresh water, in certain parts of the ocean; and some of the latter bubble up so forcibly that all the salt water is pushed aside, and ships are said to fill their water-casks at these sweet fountains in the midst of the open Pacific.

The names of the different parts of the one great ocean are familiar enough, but their boundaries must necessarily be ill-defined. The Atlantic lies between the Americas on the west, and Europe and Africa on the east. The Pacific spreads from the Americas on the east to Asia on the west; but its great southward expansion among the islands east of Australia is called the South Sea, and the expansion northward between Australia and Sumatra on the east and Africa on the west takes the name of the Indian Ocean—the smallest of all. Besides this, we speak of all the south-polar waters as the Antarctic sea, separating them from the southern extension of the Pacific on one side, and the southern Atlantic on the other, by the Antarctic Circle. Similarly, the imaginary line of the Arctic Circle incloses the Arctic Ocean. But all these names and distinctions are for convenience, and in fact there is but one ocean, whose waters are alike and inseparable, and always intermingling, as will be explained in my chapter on Currents.

NOTE.—An account of the fabled lost island of Atlantis may be found in Irving's Columbus, appendix to last volume.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

I.

JUBAL, AND THE HEBREW ORATORIOS.



HANDEL and Haydn Society, Boston, numbers about one thousand voices. We are told that eight thousand children greeted George III. with the National Anthem on the occasion of the thanksgiving for the king's recovery from insanity, and that ten thousand voices sometimes sing at the great Sunday-school festivals in London. The chorus at the last Peace Jubilee held in Boston consisted of some seventeen

thousand trained singers, accompanied by several hundred instruments.

These great modern choruses excite our wonder, but they are small in numbers when compared with the Hebrew choirs.

There were made four thousand musical instruments for the Temple service. No modern chorus ever had an accompaniment like that.

We cannot tell when music began.

The Bible speaks of the mysterious ages when "the morning stars sang together, and the Sons of God shouted for joy."

In the early patriarchal age people had learned to sing, for we are told that Laban under certain circumstances might have sent Jacob away "with songs, with tabret, and with harp" (Gen. xxxi. 26, 27).

The ancient legend is that the wind, making sweet tones amid the reeds of the Nile, first taught mankind the art of music and the use of musical instruments.

So at least began the organ. The horns of animals at a very early age were used for loud instruments. According to the Septuagint version of the book of Daniel, Nebuchadnezzar employed many kinds of music in his noble city: the Syrix (pipes of Pan), "cornet, flute, harp, sackbut, psaltery, dulcimer." All of these instruments were used by the early nations.

Before the Deluge there arose a wonderful family devoted to the arts. The father was Lamech, who was a poet. He had two wives, Adah and Zillah. Josephus says that he had seventy-seven sons, and that one of his daughters, Naamah, became such a famous singer that all the world "wondered" after her; thus showing that people in those early times were not greatly different in this respect from the world to-day.

Lamech had three wonderful sons:

Jabal, "the father of such as dwell in tents," the first architect.

Tubal-cain, "an instructor of every artificer in brass and iron," the first scientific inventor.

Jubal, "the father of such as handle the harp and organ."

Egyptian antiquity is full of the praise of music. The Hebrews learned the use of new instruments there. Miriam sang in triumph when Pharaoh was overthrown, and her song is one of the noblest of early Hebrew history.

Shepherds played the pipe under the shady trees by cool wells of water. The organ, a few reeds arranged for the mouth, was played to picturesque groups about the tents. The cymbal was used on occasions of triumph, and the harp at the festivals.

So music arose and the love of it grew. Then appeared David, the shepherd boy, with the divine art glowing within him.

He wrote sacred cantatas, inspired oratorios, for such the Psalms were. He arranged the music for the national festivals, and organized the greatest choirs and choruses the world has ever seen.

His first great oratorio was probably written for the occasion of the triumphal procession that brought the ark to Zion. We are told:

"All Israel brought up the ark of the covenant of the Lord with shouting, and with sound of the cornet, and with trumpets, and with cymbals, making a noise with psalteries and harps."

Asaph led the choirs; and one of the majestic chorals on the occasion is recorded in 1 Chron. xvi.

Another psalm has been thought to belong to this occasion, and indicates how dramatic such occasions must have been. Approaching the holy city, or one of its holy places, the procession, with its festival decorations, numerous musicians and glittering priests, is supposed to have paused at the gates. Inside of the gates, a great choir is believed to have chanted:

"The earth is the Lord's and the fulness thereof: the world, and they that dwell therein."

Presently the grand procession, or their leaders, exclaim :

"Who shall ascend into the hill of the Lord? or who shall stand in his holy place?"

To which the waiting priests make answer as in Psalm xxiv.

Then the halting procession shout forth :

"Lift up your heads, O ye gates, and be ye lift up, ye everlasting doors, and the King of glory shall come in."

The priests on the inside of the gates ask :

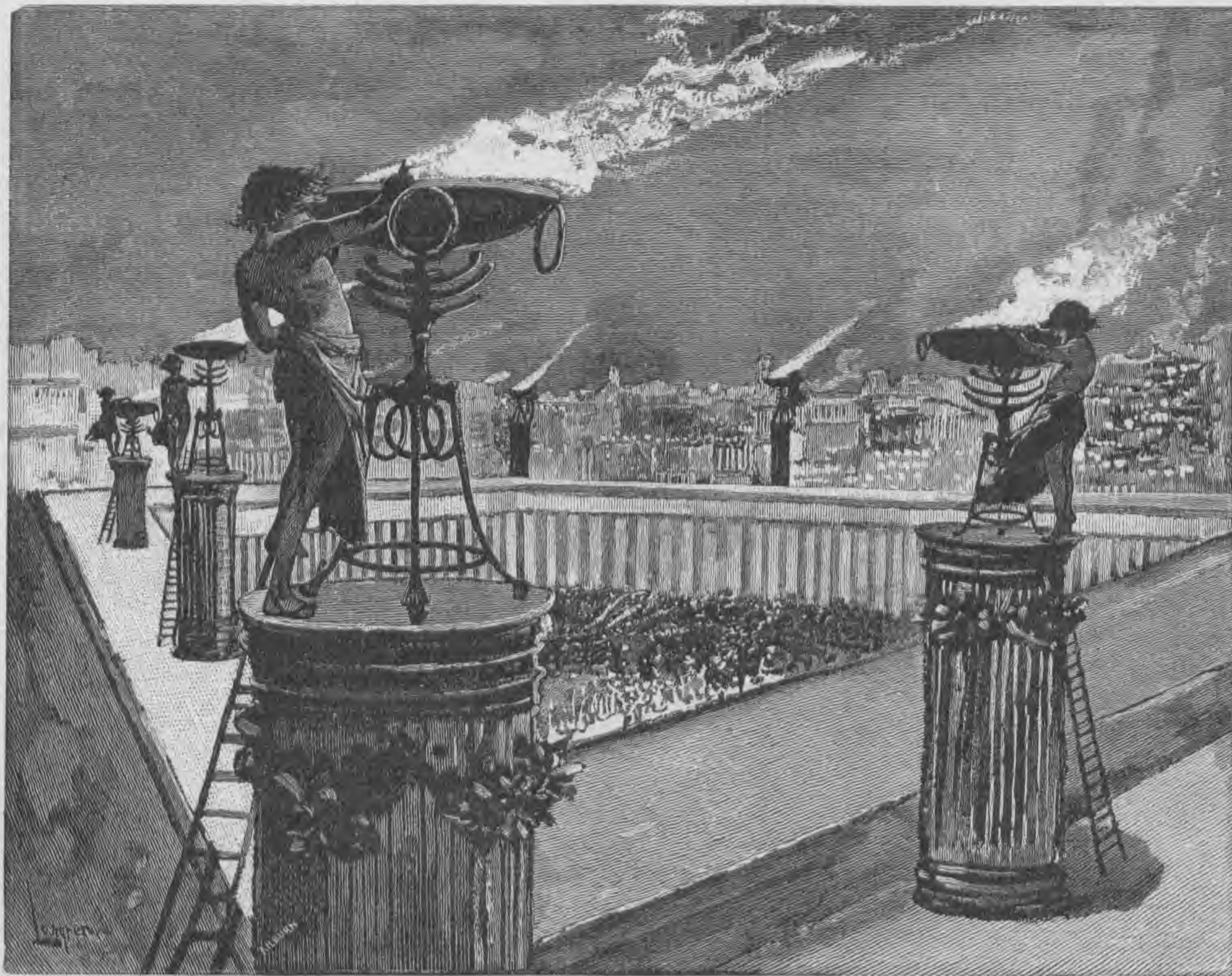
"Who is the King of glory?"

To which the people respond :

"The Lord strong and mighty, the Lord mighty in battle."

David for the Asaphian and Korahite choirs. Eleven psalms were dedicated to the choir of Korah : 42, 44-49, 84, 85, 87, 88. When all the Levites joined in the chorus at the great festivals and the people responded, when the priests moved on in stately procession amid the blare of trumpets and the clashing of cymbals, and paused amid the sweet tones of psalteries and harps, the scene must have been most sublime.

But how magnificent must have been the choral service in the temple in the days of Solomon and Hezekiah! Read the description of the musical service in II. Chronicles v. 11-14. The two great Hallel's were now arranged. The Egyptian Hallel



AT THE HARVEST CELEBRATION.—EIGHT GREAT LIGHTS BLAZE OVER THE CITY.

At the close of the sacred cantata the gates were opened.

It is not certain this was the time and manner of the cantata, but it is given this place and an arrangement like this in tradition, and the dialogue suggests such an occasion.

The preparations for the building of the temple prepared the way for the grandest choral services the world has ever heard. The choirs of Asaph and of Korah were formed. The skilled musicians were divided into twenty-four sections of twelve each, and the most lofty and devout poems were composed by

consisted of Psalms cxiii-cxviii. It was sung at the Passover. Psalms cxv. and cxvi. were sung at the last cup of the Passover, and this is supposed to have been the hymn that Christ and his disciples sang at the institution of the Lord's Supper.

The scene of the great musical jubilees was the Feast of Tabernacles. It was the Harvest Feast. For a week the Jewish nation dwelt in Jerusalem in booths made of evergreens and beautifully decorated with fruits and flowers. On this occasion the great Hallel was sung. It consisted of Psalms cxxiii. to cxxxvi. Lulabs made of twigs of the willow

were waved during the singing of the choruses. Thousands of priests and hundreds of thousands of people united in the praise. In the midst of the oratorio, water was drawn from the pool of Siloam, and the priests in a gorgeous procession ascended to the high altar and poured it out before the people. It was at this feast that Christ said, "*I am the water of life.*"

After the return from the captivity, Psalm cvii. was the text of the great oratorio; and after the triumphs of Judas Maccabeus the Feast of Lights became a part of the Harvest celebration.

How animated must have been the scene at this musical festival on the approach of night, when the Feast of Lights was to be celebrated! Let us imagine the scene. In the green booths that cover the housetops, courts of the city, and near hillsides, all is preparation. Golden lamps, like basins, glimmer high above the open court of the temple. They are filled with oil, and the wicks are the cast-off garments of the priests.

The purple twilight loses its warmth and glow, and it becomes cool and dark. Up light ladders go the acolytes to the golden basins, and presently eight great lights blaze over the city. At the same time the thousands of evergreen booths are lighted, and all the city seems to burst into flame. Men dance to jubilant music in the court of women, tossing flambeaux into the air. Gamaliel, the grave doctor of the law, is said to have been a most skilful dancer on such occasions, and to have most dextrously used the flambeau in his movements. Each man danced independently, to strains of music that proclaimed the bountiful gifts of the harvest.

Midnight comes. The Feast of Lights is a blaze of glory; the music dies away in the air. The people rest. Another cantata will be performed on the

morrow. Trumpets will hail the red light of morning, and viols the purple of evening.

Such were the great Hebrew oratorios.

We but imperfectly know how the Hebrew music was written or arranged. But we may be certain that composers who could write such sublime poetry as the Psalms, were not unskilful in producing musical effects.

The early musicians had no names by which to distinguish musical notes. The notes were commonly expressed by the titles given to the strings of the lyre. The middle string, among the Greeks, was called *mese*, and represented the key-note. So in ancient music we find the names of strings very nearly corresponding to notes at the present time.

For example, take the Greek lyre:

- d, *Nete* — shortest string.
- c, *Paranete* — second.
- b, *Paramese* — third.
- a, *Mese* — middle.
- g, *Lichanos* — forefinger string.
- f, *Parhypate* — next to longest.
- e, *Hypate* — longest.

The letters indicating the string are found over the syllables of Greek poetry for the lyre. For example, using English words and letters instead of Greek, to make clear the illustration:

a	b	c	d	a	b
Sing,	O	muse,	dear	to	me.
	d	c	b	a	
	My	song	lead	thou.	

It will be asked, Is the Hebrew music still preserved? We shall speak of this subject again in the chapter on the Music of the Early Church.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

I.

THE STATE-HOUSE AT BOSTON.

"National powers and State powers" is an incomplete classification. Our fathers carefully divided all governmental powers into three classes; one they gave to the States; another to the nation; but the third great class, comprising the most precious of all powers, they refused to confer on the State or nation, but reserved to themselves. (GARFIELD—*Chips from the White House*, p. 443.)

ALMOST everywhere in America there are three governments. One good way for young citizens to learn about them is to take a journey, observing, on the way, whether the things they pass are subject to one government or to another. The State-house in Boston will be a good place for beginning such a journey; for in visiting a State-house we learn

about the State government. Then if we travel to Washington, we shall there see something of what is done by the government of the United States. While travelling, instead of watching for beautiful scenery or remarkable buildings, we must look for the changes in governments and laws.

"Please, sir, may girls go?"

Certainly. They will be very welcome. They shall have seats by the windows and ask all the questions they wish. Even if girls should never vote, they need to know about governments and laws, in order to understand the news they read, and to converse with gentlemen about "politics," and to manage their own property.

Now for the reason for having three governments:

It is that they may take care of different things. We might almost say that the United States government—or, as it is sometimes called, the Federal or National government—has charge of the largest things; the State governments, of medium-sized things; while small matters are regulated by some kind of corporation. The words small and large are not very good. A letter, folded in its envelope, is small; yet letters are managed by the United States. A park like Fairmount, or Central, or the Boston Common, is large, yet it is managed by the corporation of the city. But the idea is, that although any one letter is small, yet the business of carrying letters over the whole country and sending them to foreign lands is a very large thing; too large for a corporation or even a State. Grown persons, instead of using “large” and “small,” would perhaps say, The United States government controls *national* subjects, and the State those which are of *general* interest to one community; while merely *local* affairs are directed by some corporation. On our journey we shall better see what this means.

Now our party is gathered at the State-house. What can we learn about State governments by examining a State-house? A great deal. Any State-house is built to provide rooms for doing the business of the State government. There are now thirty-eight States, and each needs a “house” for its business. The pictures of these houses would appear very different; but the arrangements of the rooms and the nature of the business done in them is much the same. The most important rooms are those of the legislature. The legislature is composed of gentlemen elected by the people throughout the State, to meet at the State-house and make laws for the State. They are entirely distinct from the United States government. Part of them are called “the Senate,” the other part “the House of Representatives,” or sometimes “the Assembly.” The Senate and the House have each a room in the State-house, arranged much like a school-room, but larger and more elegant. The floors of these rooms are occupied with handsome desks and chairs, at which the members of the legislature sit, listening to each other’s speeches, or reading or writing—much like the pupils in a school. At a large desk on a raised platform sits a president or speaker, and near him are clerks; looking like a principal and assistant teachers. There usually is what is not so common in school-rooms—a gallery for visitors. Whenever any person wishes a new State law he must wait until the legislature is in session (for legislatures have vacations, as do schools), and must bring it to be proposed to the members of the House or the Senate, sitting in one of these halls. A written paper proposed for a law is called a “bill.” A clerk will read the bill, so that the members can hear it; and they, if they like it, will give it to a “committee” for examination. A committee in a legislature resembles a class in a school: it consists of perhaps five, or seven, or nine members, who carry

the proposed law into a side room like a recitation room, and there study it. The purpose of their studying is to judge whether the law will be a good one. Afterwards they “report” to the other members in the large hall what they have learned about the bill, and whether or not they recommend it. Any member who pleases may make a speech in favor of the bill or against it. Then the president or speaker says: “All who are in favor of this bill say ‘Aye;’ contrary minded, ‘No.’” If enough members vote “Aye,” the bill is “passed” along to the members sitting in the other hall, where it is discussed and voted upon in the same way. If enough members in the other house vote “Aye,” the bill is “passed” along to the Governor. This is what is meant by saying “a bill was passed.”

The Governor is the chief officer of the State. He has a spacious room in the capitol, near the legislative halls, and whenever a bill has been passed it is brought to him. If he thinks it good, he marks it “approved;” and by this mark it becomes a law. Besides approving laws, each Governor has a great deal of business to manage for his State. He can forbid laws which he sees to be unwise; and can pardon criminals and set them free. He appoints various officers and gives orders; and if any officer neglects his duty, the Governor calls him to account. He does not take regular vacations like the legislature, but attends to business at any time; and very responsible and difficult business it is.

In any State-house there are, besides the legislative halls, the committee rooms and the “executive chamber,” as the Governor’s room is often called, many other business rooms. The most interesting one is the State library. One can enjoy many days in examining and reading the curious books. There are also, usually, some paintings, statues and curiosities: thus at the State-house in Boston are statues of Washington, Webster and Mann; busts of Adams, Lincoln and Andrew; and flags carried by Massachusetts regiments in the civil war. And if we ascend to the great gilded dome, there is a beautiful view of Boston and of the country around. Even persons who are not interested in laws and governments take pleasure in visiting a State-house, as there is so much to be seen which is elegant and curious.

One of the pleasures of educated persons in journeying abroad lies in comparing foreign forms of government with ours. Probably no European country has adopted the three governments as distinctly as we have. Great Britain is formed by a union of kingdoms—England, Scotland, Ireland—somewhat like our States, and has colonies somewhat like our Territories. Parliament is like our Congress, and the three kingdoms send representatives to it; but then they have no legislatures of their own. The large colonies have legislatures, but are not represented in Parliament. England has counties, cities and towns, however: indeed, it was from these that America took the idea.

Switzerland strongly resembles the United States. There is a Diet resembling our Congress, and there are Cantons, like our States. But the Cantons differ much more than do our States in their ways of managing their local governments. In the Diet the Cantons are represented in a manner which, while giving in the House deputies similar to our representatives, in proportion to the number of voters, equalizes the Cantons in the Senate. But in the Cantons themselves there are all varieties of republican governments. In some Cantons the voters elect only the officers of the great council; the grand council chooses the

chief executive, who is called Avoyer, Landaman, or Burgomaster, and corresponds to our Governor. In some Cantons the laws framed by the legislative assembly must be submitted to the people. In others, the people are periodically convened to vote directly on the public business, much as is the way in a New England town meeting.

NOTE.—For description of the English form of government, read Stubb's "Constitutional History of England," "Anecdotal History of Parliament," Green's "Shorter History of the English People." "Switzerland," page 553 (Lothrop's "Library of Entertaining History,") gives a clear account of the Swiss Diet and Cantons.

HEALTH AND STRENGTH PAPERS.

I.—THE YOUNG SCHOOL-GIRL.

LAST summer, down in Maine, several school-girls were among the "summer boarders" at the farmhouse where I was staying. Among them were two young daughters of a gentleman well known for his leadership in out-of-doors sports and pleasures. These two pale languid girls set me to think about our young school-girls, and to feel what a pity it is that the growing taste for the brown and the rosy tints in complexion, for roundness and suppleness of figure, and for the strength to do what one chooses and so have "a good time," should not yet have reached school-girl circles.

At present, the fashionable impulse is toward outdoor life; but the average school-girl of fourteen is, it seems, out of its circuit. Her younger sister romps, and is doing well—for the present. Her elder sister, too, who is in society, is doing well: takes a three-mile walk with gay friends to a sunrise breakfast; rides horseback across country of a forenoon; she drives, she rows and she shoots; and next season perhaps she will join the Appalachian Club and add climbing to her pleasures.

But our school-girl is largely occupied with becoming "a young lady." She may lose sight of her intention by and by, when she enters Lasell, or Wellesley, or Vassar; but at present, especially if she be a village girl, she does not know even the joyous restful weariness of a long vigorous walk, much less would she *run*. An academy girl run! She does not dream of the origin of the stately name of her select school—that Academos, a wise Greek, bequeathed a great tract of land to the city of Athens on condition that a public gymnasium should be erected on it, and that the gymnasium was called Academia, or the academy, in his honor. Very likely, treasures of flowers, rare plants, minerals, birds, and beautiful landscape views, illustrating the sciences and literature she is industriously studying in-doors, lie all

about her, among the hills and woods, within walking distance. But she is none the richer. She and a friend, arm in arm, frequently "promenade;" she stands about in groups, she returns calls, she goes shopping, she wears high French heels, and wears them, too, as nearly as may be, under her insteps. She has been known to visit the chiropodist.

My two representative school-girls arrived at the farmhouse with bad headaches, and were not visible until the next morning. Three babies who came by the same train reached us in much better trim. When we did see them, loosely plaited flannel gowns and broad hats bespoke rambles and open-air modes of daily life—in keeping with the athletic father's fame. Ferny woods, lofty points of view, silver lakes with boats tossing at their moorings, water-lily ponds and berry thickets, lay about us, east, west, north and south. Two months of picturesque Maine would balance the account with long recitations and the deathly folly of study-hours after school.

But my pale young ladies, in common with most of the red-cheeked boarders, rose late. After breakfast, they retired to the sofas, or their hammocks, to read a novel; often they went at once to their rooms and threw themselves on the bed. They slept after dinner, and sat up late at night for in-door, lamp-lit fun. They neither rowed nor fished. The light spruce oars stored in the barn, not at all too heavy for a girl's slender shoulders, invited them in vain. Nor did they ramble or go berrying. They sauntered and lounged all summer.

I venture to say that they had heard from parents or teachers not one word of what they ought to get from two months' stay in country air and freedom.

The school-girls are back now in the September schools, and no doubt they often dream over their books of the time when they shall be fine ladies and "in society." But, my dears, the fine women of society ten years hence will be, probably, somewhat different from the ladies of your imagination. I

doubt, at least, whether so many of them come from district schools and village academies as came twenty years ago. I will tell you, presently, of a village school which sent out some strong, fine women; but just now, without even stopping to say in detail why you need it, I prefer earnestly to ask the girls of the Reading Union to adopt a certain exercise at recess, instead of strolling idly about and chatting. A noble woman, who has employed it in restoring health to invalid girls, assures me it also ought to be used to preserve health. Its intention for you is to rest you from sitting at your desks, to restore the circulation of the blood, and to render supple the whole body.

The movements which affect the joints are graceful. Perhaps your teacher will come out and "count" for you, perhaps she will play tunes for you; but you may enjoy it just as well should you choose the most determined girl of you all to "call off" for the row of you, and bind her never to "let you off" from going through the exercise once a day at least. It is a pretty sight when a dozen girls in a line go through these ten movements, each moving in perfect time. A handsome wand in your leader's hand, used as musical conductors use their *bâtons*, with which to harmonize and beat time for your movements, will add much to the beautiful effect of the spectacle.

The following *ten movements to promote general suppleness* are furnished by Miss Mary E. Allen, of the "Boston Gymnasium for Ladies and Children."

POSITION: Heels together (as near as the configuration of leg will permit); hips thrown back; chest forward; head erect, with eyes to front; arms falling easy, with back of hand turned slightly to the front.

EXERCISE: From this position bring hands to hips; thumbs back.

Head: Turn twice to right—twice to left—once to right—twice to left—once to right—back to front; drop hands to side and close to a fist.

Shoulder: Raise right shoulder as high as possible four times—raise left four times—raise right and left alternately four times (left going up as right comes down)—raise both together four times; drop hands to side.

Arm: Throw right arm to horizontal at side (hand closed tight) four times—throw left four times—throw right and left alternately four times—throw both together four times, and bring fingers to tip of shoulders, upper arm horizontal, elbow pointing to front.

Forearm: Throw right forearm to front on the elbow as a pivot, until the whole arm is horizontal

(closing the hand at the throw), four times—throw left four times—throw right and left alternately four times—throw both together four times; and carry arms to side, horizontally stretched out, with palms up, and fingers closed into a fist.

Wrist: Turn right fist *up* as far as possible four times (elbow stiff)—turn left up four times—turn right and left up alternately four times—turn up together four times; and bring arms to horizontal stretch, front, palms down, fingers together and closed.

Hand: Open right hand and stretch every finger four times—open left hand four times—open right and left alternately four times—open together four times; and bring hands to hips.

Trunk: Turn as far as possible to right (holding trunk firm, turning face at same time, heels firmly planted), two times—turn to left two times—turn to right once—turn to left two times—turn to right once; and back to position.

Thigh: Carry right leg across left (crossing left thigh as far up and as close as possible, knees stiff) four times—carry left leg across right four times—carry right and left across each other alternately eight times.

Leg: Raise right leg as high as possible behind, (on the knee as a pivot) four times (thigh remaining vertical and firm)—raise left leg four times—raise right and left alternately eight times.

Foot: Raise right foot on heel as high as possible four times—raise left four times—raise right and left alternately eight times.

The *position* is very important, and the leader should insist upon it before the exercise begins. The body should *hold* the original position—with such changes as are indicated—firmly, so that only certain muscles are in use at once; thus, when the arm is used, the body should be stiff and firm.

Head movements should always be slow, but firm, never with sudden force. Hence they are taken on the first beat of a measure only, or on 1 when counting 1, 2, 3, 4. All other movements are done with a spasmodic action, faster, using every other beat of 2-4 or 4-4 time, or on 1 and 3, in counting 4. That is, the movement is made on 1 and the return to position on 3. This exercise can be taken to any even 2-4 or 4-4 time—a pot-pourri of popular airs being pleasing, or any polka or quickstep.

These movements aid in bringing the muscles under the control of the will, and promote ease and grace of movement; also, as they force the mind and muscles to work together, they are a very valuable stimulus to the mental faculties; and, if enthusiastically and earnestly carried out, their influence will be felt in all mental work.

WHAT TO DO ABOUT IT.

JENNIE VILAS writes, "I ink my fingers every time I write. It is a bad habit, and my aunt is annoyed by it. Please tell me some way to cure myself." It is an untidy trick, but one that is avoided by giving a little thought to the implements you write with. Look at the book-keepers in stores, who write all day, and yet keep their hands, cuffs and ledgers faultless, so that a white hand, with a fresh cuff and a page like copperplate, seem ordered in a set together. Ink-spots are the signatures of carelessness. Have a wide-mouthed inkstand with only half an inch of ink in it, and fill often. You can't dip a pen hastily in a deep ink-bottle without smearing the holder and your hands. The little earthen pots which Liebig's extract comes in, make good inkstands in want of anything better, and, with a sprig of flowers or other device in colors painted or pasted on, make pretty holders for ink, matches and crayons. To keep your page neat in writing, have a sheet of blotting-paper large enough to cover it, and keep it just below the line you are writing, to rest your hand upon. By this means, copyists and draughtsmen keep their large pages fresh and undimmed.

LILY, aged eight, thoughtfully asks if there is no use to be made of wild roses, which grow in such myriads on low shores and wet lands. Yes: their petals yield the finest perfume, and you want to gather them after the dew is dry, and shut their pink leaves, before they wilt, into thin muslin bags, baste up the open end and lay these large sachets away under the clothes in drawers, or in writing-tables. Clean three-cent salt-bags will answer, but you want dozens of loosely filled bags to strew about. Save all the rose-petals of any kind you can get; their scent is more delicate than any prepared perfume. Girls should save bunches of sweet garden clover, and of vernal grass, both of which keep their delicious sweetness for years, and fill one's room with haunting breaths of lost summers. Part of our duty to keep our corner of the world sweet and lovely is fulfilled in such ways; for the fragrance of refreshing flowers and plants is not only pleasant, but healthy, as it purifies the air and kills the germs of disease. So gather the heads of vernal grass which bloom a second time in the late season, and the green leaves of the tall spiked garden clover, the lemon verbena, whose scent is so good for headaches, and of rose geranium, and let the cheap cologne and perfumes with fancy names go by.

To take out ink-stains, stretch the part stained smoothly over a bit of board to keep the ink from spreading. Wash with a sponge, and rub dry as

possible, and scrape gently with a dull knife. Most of the ink will come out, and what is left will yield to lemon juice and salt rubbed on the spot. Leave this on a few minutes in the sun, wash off, and restore the color by wetting with diluted ammonia, half a teaspoonful in a teacup of water.

CLARA asks "how she must turn down the corners of her visiting-cards to be fashionable, and what the corners are bent for." Ladies who have a large circle of acquaintance used to bend a corner of a card to show that they called in person and did not send it by a servant, which is a way of showing people formally that they are remembered. But the practice is almost out of use in good society, and persons of taste no longer bend one corner to signify condolence, another for congratulation, or another for taking leave. Don't you know how absurd it is for school-girls to use visiting cards at all? It would not be allowed in any good society abroad; girls not having so many friends as to need these aids to memory. When they go into society, their names are printed on the same card with their mother's, and these cards used when they call together. It sounds very fine to foolish girls to speak of "sending up my card," but in polite society abroad it would be thought stupidly ignorant to send one's name by card when one was at the door, instead of telling it to the servant. Hosts of boys and girls through the country imagine it essential to buy quantities of pink, green and blue, glazed, crystallized and snowflake cards, cheaply printed, at ten cents the package; but there is no more good taste or style in using them than in carrying "moral pocket-handkerchiefs," with Poor Richard's maxims on the border, as children did forty years ago.

Several inquirers must wait for answers; but I hope the members of the Reading Union will feel invited to send all questions which really perplex them to the editors of WIDE AWAKE, who will drop them in the hole in a hollow tree, where I will find them, and bring the answers. The editors have chosen to give such questions to me, not because the Blackbird knows more than Solomon, as it needs to to answer children's questions, but because it can fly hither and thither, darting north, south, east and west to bring information, and because it has an eye to spy out things from its airy poise. You needn't make up questions just for the sake of asking; but anything you can't find out from your mother, or your father, your aunt, your older brother or sister, the dictionary or encyclopædia, the teacher, or your minister, or the hired man, you may just send to

THE WISE BLACKBIRD.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

II. — IN THE GERMAN WOODS LONG AGO.

BY THE EDITOR.

I WAS about to say that the story that I shall tell you of what happened in the German woods long ago is a sort of bridge between the first Christmas and the last Fourth of July, but I shall not say so. Yet, if you will keep the first Christmas and the last Fourth of July in mind, it will help you to remember the story. The first Christmas was the day on which our Saviour was born. It seems as if it ought to have been the year ONE, but the almanac-makers have made a mistake in some way, and we cannot tell in what year the great event occurred. It was probably earlier than the almanac would have us think.

However, at the time when the angels sang their song of good-will to men on the plains of Palestine there was a little boy in the city of Rome who had been taken from the wild woods of Germany by the Roman army, and was getting his education as a citizen of the great nation. The Romans called him Arminius, but he had been named Hermann by his mother, and he did not let the fact that the conquerors of his people gave him a new name cause him to forget that he was a German and not a Roman.

We can imagine him, as he studied his Latin lessons, thinking of the language of his mother, and of his old home and life of freedom where the liberty-loving people dwelt to whom he was proud to belong.

He was not alone in Rome, for one of his brothers was there also, and the Romans were trying to make both of them forget that they were Germans. With the brother they succeeded. He took a Roman name, and would have nothing to do with Hermann in planning to get freedom for the German people. Years afterwards, the two brothers at the heads of great armies, were often opposed in battle.

Hermann studied history in Rome. I think there can be no doubt of that. He learned how the Romans had conquered many nations, how, in spite of the bravery of the people there, they had obtained the mastery in Gaul, as the territory which is now France was then called. He knew it was the great Julius Cæsar who had conquered Gaul; but as he read further, he found that Cæsar was one of a "triumvirate," or government of three men, of whom one was Crassus, whose experience in trying to conquer other peoples was not like Cæsar's. It strikes me that Hermann found some comfort in reading the story of how Crassus tried to overcome the Parthians on the plains of Mesopotamia, and how he was himself overthrown and killed, and his whole great army lost. This had happened when Hermann's father was a boy; and there must have been old men in Rome able to repeat the stories of the deeds of Crassus, who was the richest man in the city, and perhaps some who told Hermann all about the terrible defeat of the army by the "barbarians."

Perhaps he looked on some rough map and found that Parthia was way off among the mountains on the Caspian Sea. He knew that this people had been the most successful in resisting the encroachments of the Romans, and that when they had fought it had been for their freedom.

I imagine that he said to himself: "What has been done can be done! The Parthians have overcome the Romans, why cannot the Germans do the same?"

On the other hand, doubtless, he weighed the odds against him as he recalled the success of the other triumvirs, and especially the story of Pompey's conquest of the great King of Pontus, Mithridates. He must have thought of the failure of Hannibal, as well as of the long line of opponents of Rome who had fallen by turn before her victorious chariot wheels.

Hermann was not the sort of person who unthinkingly rushes to a conclusion. But he thought long of how much his people loved freedom, how

they had once been free, and at last he made up his mind that they should be free again.

The patriotic young student saw too the great difference between the Germans and the Romans. The one lived in cities, surrounded with every sort of luxury—they were gay and pleasure-loving. Every kind of dissipation abounded, and it was plain that the Roman people were not growing stronger, and that they would only grow weaker unless they dropped some of their bad habits. He looked to the green woods of his home. He saw a people active, full of bounding health, who loved liberty so much as to be unwilling to live in cities or even villages. They loved nature, too, and, next to war, their favorite occupation was hunting. Among them, as a Roman writer has said, "no one smiled at vice;" and it was not "fashionable" to do wrong, as it was at Rome.

Another great difference that Hermann noticed between his people and those around him at Rome was in the treatment that the women received. Marriage with the Germans was a holy thing. The men loved their wives and children; home was a place sacred to the sweet enjoyments that have made it so beautiful among their descendants ever since. When they were married, the man made presents to the bride, and any wrong done to her roused in the husband's heart the direst desire for vengeance. Already the Roman generals had treated the Germans' wives and daughters in a way that stung their husbands and fathers to the quick. The lines of one of the great English writers express this feeling well. He says, (altering but a word),

"Leave to the poor barbarian his single tie to life,
The sweet, sweet love of daughter, of sister and of wife,
The gentle speech, the balm for all that his vexed soul endures,
The kiss in which he half forgets even such a yoke as yours.
Spare us the inexpiable wrong, the unutterable shame,
That turns the coward's heart to steel, the sluggard's blood to
flame;
Lest when our latest hope is fled ye taste of our despair,
And learn by proof, in some wild hour, how much the wretched
dare."

It was when Hermann was about six years old that the Romans had made their first inroads upon the territory of the Germans, led by a general named Drusus, and it may be that the little fellow had been taken to Rome at that time. Drusus built many forts on the Rhine, and, I suppose, thought that he had conquered the people. It is said that once while he was there, a supernatural figure appeared to him, and with a lofty, threatening air, said, "How much further wilt thou advance, insatiable Drusus? The Fates forbid thee to advance! away! The term of thy deeds and of thy life is at hand!"

Whatever Drusus thought of this apparition, true it is that he did not advance further, but soon after, while retreating, fell from his horse and died.

It is said that on his retreat, wolves howled around his camp, the wild screams of women were heard, and the stars raced about the sky! To the minds

of superstitious people these were frightful omens. He was succeeded by his artful and arrogant brother, Tiberius, who afterwards became emperor of Rome.

Under Tiberius the condition of the Germans did not grow much worse.

When he returned to Rome, a general named Varus was sent to take his place. He had been among the conquered people of Syria, and thought that he could govern the Germans as he governed them. But there was none of the German love of liberty among the Syrians, and Varus soon found that he had made a mistake. Under Tiberius the Germans had been comparatively quiet, waiting, as it proved, a leader to rise and give them freedom. Now they were irritated and ready, and now too a leader was ready to show them the way to throw off the galling yoke.

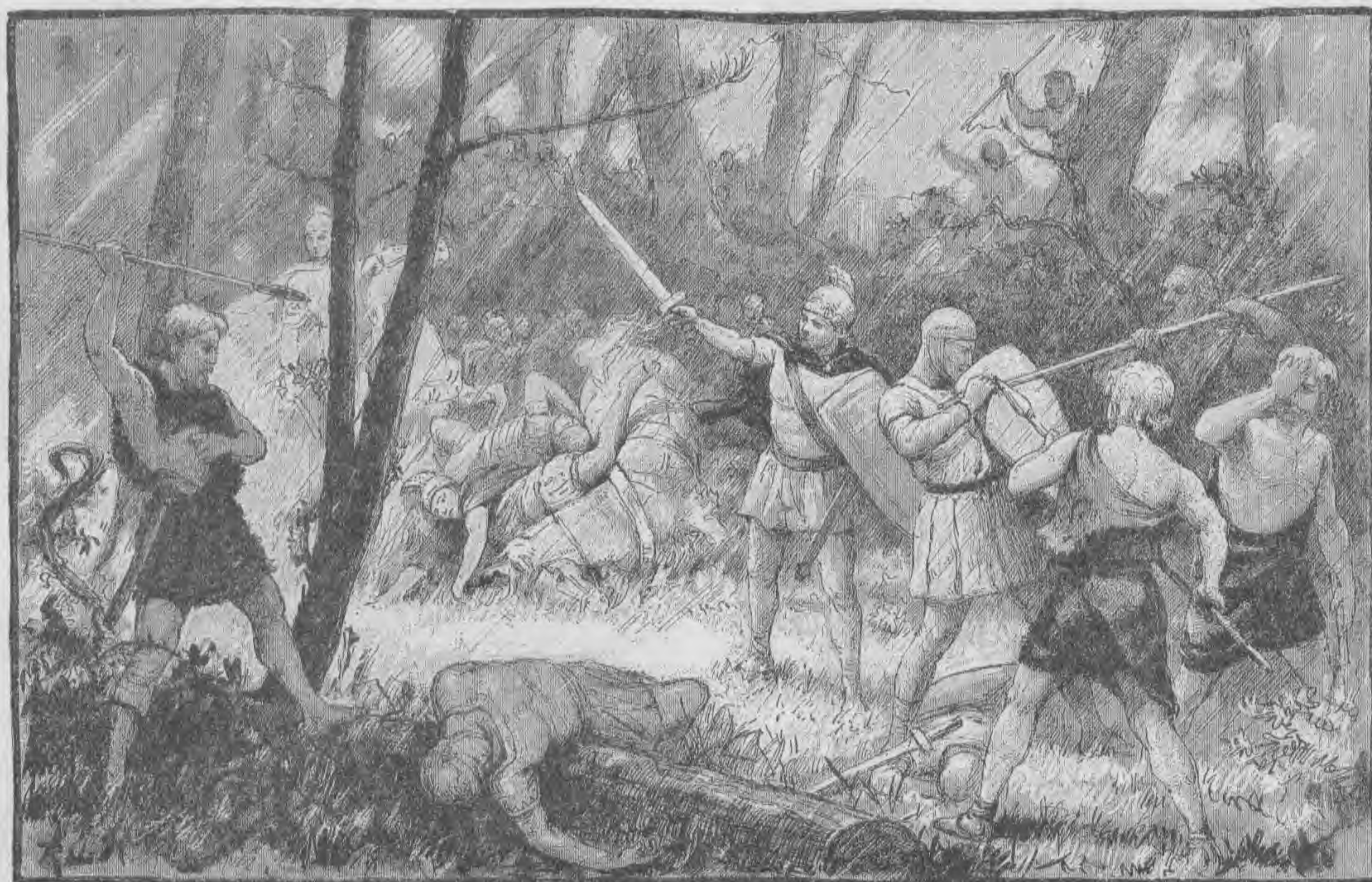
You are ready to say that it was Hermann who was to do the heroic deed. He had been trained by the Romans to lead his own countrymen in wars for their conquerors, but he could not be made to forget the interests of the German people. He showed them that by uniting their forces they might resist a people even so powerful as the Romans. He found that they were prepared to strike a great blow for deliverance. Hermann knew that if he were to attack the well-armed and carefully drilled soldiers of Rome in the open field, he would have little chance of success. He determined to lead Varus into the wild forests, where numbers and strength of body would be a match for skill and arms. He therefore caused the people of a distant place to open the war by revolting against the invaders, and made his plans to attack Varus when he should have marched beyond his forts, in some thick woods among the mountains.

Varus was as confident of success as the Romans generally had been, and fearlessly marched to his ruin. If you will look on a map of Germany, you will see a town named Detmold, about fifty miles southwest of Hanover. It is among the rugged mountains known as the Teutoburger Alps. The country is full of narrow valleys, surrounded by lofty hills, which at the time we are speaking of were covered with great trees. It was to this region that Hermann enticed Varus, and at a point near the town of Detmold the Romans met the Germans. Varus had with him about fourteen thousand infantry from Rome, nearly a thousand Roman horsemen, and a large number of soldiers that he had gathered from the provinces. These were well organized. They had brave and skilful officers, and the heavy armor that you have seen in the pictures of Roman soldiers.

There were no roads through the woods, and Varus was obliged to cut down trees and fill up swampy places in order to get his army along. Then, almost before he knew it, he found himself in a trap. The valleys were large enough, but they were entered by narrow defiles, through which but few

could pass at a time. Hermann and his army knew the way about the region, and they were there before the Romans, cutting down trees to impede their progress, and harassing them from the tops of the hills. Heavy rains had fallen, and it kept raining, until Varus thought it would never stop. This made his progress in any direction very difficult, even when he had no enemy striking his men down with arrows that seemed to come from the clouds, or to be shot out of the very hills themselves. He had also made the mistake of carrying into the woods his heavy baggage wagons, and of letting a great rabble of camp-followers go along, just

homes but only because their general told them to do it. Varus soon saw that there was no possibility of his getting ahead, and ordered his men to start back. They did as they were told, but still they fought. They were separated one from another. The Germans surrounded the small bands and slaughtered them. They were lost in the swamps. Their eagles were taken. All hope left them, and they saw that there was no escape. One little body of veterans formed themselves in a ring on a mound, and determined to sell life as dearly as they could; but it was of no use. They tried to raise a protecting earth-work and to make a ditch, but they were worn out



IN THE GERMAN WOODS.

as if he were travelling through a friendly country, or taking an excursion to exercise his men.

Hermann would not let his brave desperate Germans go out to meet the Romans in any open place, but held to his plan of secrecy and artifice until he saw that the Romans were tired out, and were leaving their heavy wagons, and getting into such confusion that they could not even hear the commands of their officers. Then he ordered his men to charge upon the worn-out foreigners. With shouts and fury the Germans sprang through the gloomy woods, firing their terrible arrows at men, but especially at the horses of the Roman cavalry.

We pitied the Germans at first, but now we pity the poor lost Romans. They were not fighting for their

by fatigue and pained by their wounds. Inch by inch they were obliged to give way, and the Germans charged on them, killing all that they did not reserve to be offered as sacrifices. Very few of the proud army of Rome escaped to tell the story of the fight in the German woods. Varus cast himself upon his sword and died. But the news was taken to Rome, and the emperor and all his people received it with terror. Tiberius, who had called himself Augustus, "the majestic," tore his clothes in his agony, and pitifully cried out,

"Give me my legions, Varus!"

But the legions could never be given him.

The horrified Romans declared that the summits of the Alps fell at this time, and that columns of

fire blazed from them; that the temple of the God of war in Rome was struck by a thunderbolt; that the heavens glowed as if on fire; that comets blazed forth, and meteors like spears shot from the north into the Roman camp; that the statue of victory which had been erected on the frontier, pointing towards Germany, had of its own accord turned around and pointed towards Rome.

It sounds very much like what we read in Shakespeare's play of Julius Cæsar:

"Graves have yawned and yielded up their dead;
Fierce fiery warriors fought upon the clouds,
In ranks and squadrons and right form of war,
Which drizzled blood upon the capitol;
The noise of battle hurtled in the air,
Horses did neigh and dying men did groan,
And ghosts did shriek and squeal about the streets."

It was believed that the victorious Germans would march upon Rome, and there was consternation on this account. A great force was raised by draft, for no one of the military age was willing to enlist to face a foe so terrible as the Germans were represented to be by the frightened refugees who had brought the news to the city.

But the Germans did not march to Rome. Hermann fought for freedom, not for conquest as the Romans did. He obtained what he fought for. If you look at a map of the ancient Roman Empire, you

will see that it did not extend beyond the Rhine.

Hermann put a stop to Roman progress in that direction for all time. He won freedom for the Germans and their descendants, and put that spirit into them which caused them, on the Meadow of Counsel, to force King John to sign the Magna Charta; which caused them at Philadelphia, in 1776, to sign the Declaration of Independence, and give us a long line of Fourth of Julys in which we celebrate the birthday of freedom in America. You know that the English came to England from the region of country in which Hermann won freedom. It was *our* ancestors, then, who gained the victory over Rome in the German woods long ago. It was *our* ancestors, too, who gained the Magna Charta twelve hundred years afterwards, and it was *our* ancestors who fought the battles of freedom a hundred years ago, and gave a new utterance to the determination of old Hermann that his blood should not flow in the veins of any but the free.

Note.—In connection with this story you will find it interesting to look over Kohlrausch's "History of Germany," Chapter I; Sir Edward Creasy's "The Fifteen Decisive Battles of the world," and Smith's "Dictionary of Greek and Roman Mythology and Biography," articles Arminius, Drusus, Crassus and Varus.

If you ever visit Germany, you will be interested to go to Detmold. On the summit of the Grotenberg, the culminating point of the Teutoberger Alps, you may see a great statue of hammered copper, forty-five feet high, standing on a circular pedestal of stone ninety feet high, erected by the Princes of Germany to the memory of Hermann. Remember if you see it, that it commemorates *our* Hermann. He does not belong to the German princes or people alone.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

I.

SCULPUS.

YOU might perhaps guess a dozen times before you thought of any door-yard creature known as *Sculpo* or "Sculpus."

The name seems more fit for some giant or hobgoblin. There is a kind of Blue-Beard and Bugaboo sound to it. Or it might be associated with war-whoops and tomahawks.

Nevertheless, just at our door-stone lives Sculpus; peaceful, harmless, domesticated, and as much at home here as we are ourselves. His name has become a "household word." He has lived here a year and a half, and we are familiar with his ways, although we have never set eyes on him but once.

He has facilities for travelling which are peculiar to himself. He has more subterranean passages than could ever have been found under all the old castles in England if all were counted. His modes of exit being so numerous and out of sight, he may range further than we think. But here is his domicile, here his basis of supplies. His family, if he has one, is here. Here are his headquarters: whatever may be his ventures into the world without, he is sure to come back.

Sculpus is a mole of some species. It was suggested by one who saw him on his memorable visit to the earth's surface, that he was a "meadow-wont." All country boys know about *him*. The word is properly "*want*," from the old Saxon. The English call him "mould-turner," or "mould-warper," from the Saxon *mold*, earth, and *weorpan*, to turn over.

In that case his name would be *Talpa*. Somebody else said he was a shrew-mole, which is probable. The name I have given him is a corruption of *Scalops*, the scientific one by which the shrew-mole is known in zoölogy, from *Sculpo*, "I scrape," because he scrapes the earth back with his paws.

The boy and girl natural-history students of the Reading Union must look him up, and fix his appropriate name, after I have told what I know about him. Observation is good, so far as it goes, provided it is careful and reliable; but we want science to supplement and sustain it.

Meanwhile, allow me to call him *Sculpus*, right or wrong; since I am not sure, and seeing he is our own mole, and we are used to that.

We had long been in the habit of noticing that the earth was loosened about the door-steps, where something had been burrowing or scratching. But we first knew of his existence by seeing a narrow ridge in the yard which had been thrown up mysteriously during the night.

In the course of the next twenty-four hours, it had advanced in a circuitous way to the distance of several yards. Soon the whole surface was traversed with these irregular lines, which have as many curves and turns as the most erratic river on the map.

Of course we knew that the unseen worker who silently made these "warpings," or "runs," as they are called, was one of the mole tribe. After examination, we saw that his starting-place was under a large summer-house in a corner of the yard. This had an underpinning of hammered stone which set closely on the ground. Under the building it was plain that he lived; and he had started out in search of the earth-worms which are his food, tunnelling in this direction or that, as the presence or absence of these dainties determined his course.

For several days he came out at the same point; and the main line was as distinct from the others as a turnpike is from the roads that turn off from it, or as a river from its tributaries. Afterwards he established another Grand Trunk route, and eventually a third, and the branches meandered off seemingly at haphazard, sometimes almost doubling upon themselves, as if the builder had suddenly changed his mind.

At first all these ridges ceased without an opening; so we knew that the creature must have had to go back the same way that he came. But we soon discovered several where he had at least put his head out into daylight. And that reminded us that there was an old tradition that the mole looks out of the ground once a day, at twelve o'clock, and the country people used to know by that just when it was noon, and set their clocks by him.

However that may be, we never got a chance to regulate our time-keepers in that way. No patient watching of those openings was ever rewarded by a sight of him.

This thing went on for a fortnight, till the yard

was likely to be pretty thoroughly ploughed. It was almost impossible to walk anywhere in it without stepping on one of his covered galleries and leveling it; though we tried to avoid doing any such damage. He was pulverizing the surface soil to an incredible extent. And yet it was a hard-trodden piece of ground, impenetrable to a spade by reason of so many matted, fibrous roots of shrubs and trees. We should have said that there was not a square foot of it into which you could dig; but he threw it up as easily as a gardener would turn the mellowest loam under cultivation.

And he was a prodigious worker. We once found by actual measurement that he had tunnelled thirty feet within three hours. He had the double advantage of being able to work by night as well as by day. What possible difference could it make to him, down



SCULPUS ABOVE GROUND.—WHAT O'CLOCK IS IT?

there in the dark, whether it was midnight or high noon?

We began to feel a great respect for him. And the lines by which he was making approaches towards us excited our profound admiration. With what precision these horizontal borings were made! Mathematical calculations could not have been more accurate than his instinctive measurement. His tunnel was kept at a uniform depth below the surface. The arched ridge did not vary in height. The roof of his lengthening galleries never fell in, and the walls did not give way.

But, then, *Sculpo* was a civil engineer ages before the great plan of tunnelling through a mountain, or under the bed of an ocean channel, had been dreamed of by man. As birds and silkworms were the first weavers and spinners, so I am certain that the mole had the earliest knowledge of how to make an underground drain; how to construct a subterranean passage for communication between remote points; how to fashion a perfectly arched gallery without supports, and how to extend it to interminable length.

Each morning we used to go the first thing to see

whereabouts he had made a new "run," and how much he had accomplished between dark and daylight. In the first of it, we supposed he dug only in the night; judge then of our surprise one forenoon when we spied the earth moving, and saw the progress he was actually making. We had caught him at it.

Now we felt sure of him. We opened the gallery just where he was; but he was too quick for us. At the first touch of the earth, he had taken the alarm, and instead of coming out, as we ignorantly expected, he had returned by the road on which he came, without betraying where he was by so much as disturbing a grain of soil in the arch above him.

Afterwards we found out his method. His "run" was the size of his own body only; and in retreating, he had to go tail foremost, since there was not room to turn round, till he arrived at the first intersecting "run," where he could slip into that head-first, and then go as other animals do. It was a remarkable performance; and he was so swift that it was of no use to open the ridge. He would have been far beyond in some distant gallery.

It grew to be very exciting as day after day, and many times in a day, we saw the earth stirring, and the arched road steadily advancing. There was only one way to get a sight at him, which was to cut off his retreat. And that we determined to do and get possession of him. But it took three of us to accomplish it; and we had our hands full. One struck a shovel into the earth behind him, while another laid open the ground where he was at work, and the third attempted to seize him with a pair of tongs. But the moment the light was let in upon him, he bored straight down towards the centre of the globe and disappeared.

The amount of intelligence and management represented by three grown-up persons came near being defeated by the instinct, sharpness, strength and swiftness of one small animal. It took a good deal of work to keep him in sight, and then a good deal of dexterity to grasp him, for he was as slippery as an eel, and then to hold him, and finally get him inside of a wire rat-trap. And even then so determined was he to force his way out that the door had to be secured by a piece of strong wire, for the regular fastening gave way at the first push he made.

It was like having a desperado on one's lands. He did not for one moment cease in his efforts to escape. Round and round he went, pushing his hard nose ahead, and with his horny paws trying every wire.

He was perhaps five inches long, and round as a log; a plump, well-to-do creature. Evidently earth-

worms had been abundant. He was like a fat little pig; and he had a rooting snout of immoderate length, broad, hard and horny. His paws were like flat spreading hands, with nails fearfully long and dangerous looking. No wonder that he could push the earth up with such a ploughshare of a nose, and scrape it aside with those dreadful hands. He would have been a beautiful creature but for those strange, coarse, flesh-colored members.

No ears were visible, yet he detected a sound instantly; and his eyes were bedded in the fur. That fur was the loveliest, finest, softest of any creature in the world, I must think. Sable and mink and beaver are coarse in comparison. It was the most absolutely delicate stuff that could be imagined. It was thick and close, blue-black, or a deep mouse color, and of such a polish that the earth he came in contact with could not cling to it or soil it. He was the cleanest, glossiest animal I ever saw.

As soon as we had surveyed him, we carried the trap out to the terminus of one of his closed galleries and opened the door. In one second, our *Talpa*, mould-warper, meadow-wont, *Sculpus*, *Scalops*, scraper, shrew-mole, or whatever he was, went in head-first, and was lost from our sight forever.

That happened about the last of June, two years ago, and we saw no further evidence that summer that he was living. The "runs" remained until the snow came and hid them. But after his adventure there were no fresh ones, and we were very much troubled about him.

We had not injured him; so that he could not have died in consequence of his capture and brief imprisonment. But we feared that our treatment had driven him away.

It was, therefore, a pleasant surprise when, about mid-summer of the next year, we had evidence that the mole was still with us. But he seemed to have taken "a new departure," literally. None of the new "runs" began under the summer-house. There were no long or connected routes. Each was by itself, simply a few yards of ridge thrown up, indicating that he lived down deeper than formerly, came up to burrow near the surface and then bored his way back.

There were several openings, smoothly rounded holes in the ground, quite a distance from the "runs." The roadways, descending at an angle from these loop-holes, were worn hard. It was apparent by this that he must have poked his head out often to see what time of day or night it was.

But evidently his happy, simple confidence in the owners of the door-yard was gone.

WAYS TO DO THINGS.



IN HER ROOM.

II.—FOR A GIRL'S ROOM.

BY SUSAN POWER.

TO make a girl's room pleasant with small means, no help is so potent as that of good taste. It at once forbids a host of useless efforts which do not aid the effect when completed; it will not allow one to attempt too much for her time or material, or to do too much at a time. Suppose my Phebe of plain habits and delicate tastes wants to make her room pretty, spending little on it beside her own skill. How dear her own room is to just that kind of a girl—the place where she braids her hair and ties

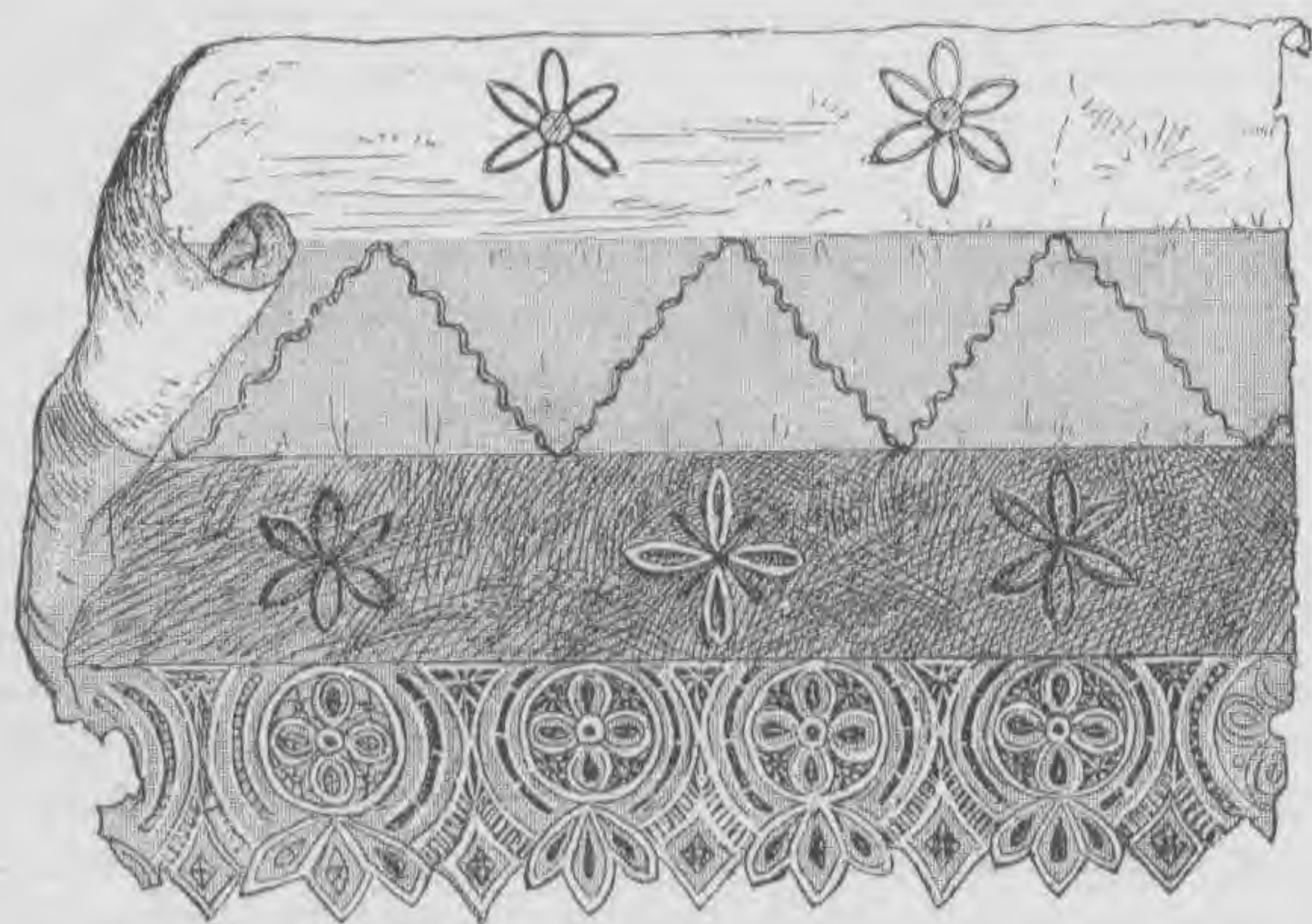
her ribbons, writes her letters and takes her intimate friends. She wants a change from the cheese-cloth trimmed with Turkey-red cotton which has been the style of cheap taste long enough.

A pretty coverlet and pillows, a toilet cover and heading for the window curtains, are the most necessary pieces. I will not send her to the shops even for five-cent sheeting. Her shillings must be spent for working cotton and braids, the family scrap-bag supplying the foundation. The present fashion likes gay soft coloring in a bedroom in relief of the spotless white of Marseilles quilts and dimity hangings, and it is very well for cheerful daily use. We will want several large skeins of coarse, colored marking cotton, which is found in Turkey-red, garnet, pale blue and dark blue at most shops. Embroidery in these cottons will wash without fading. The Turkey-red knitting cotton in large balls at fifteen cents is cheapest, as a good deal of this enters into most work, and the color is fast. The other shades are from two to five cents the small skein. Washing crewels are used for the same purpose, but the cotton is best on linen or cotton ground. Turn out the piece-bag and drawers for all the pieces of white piqué, linen, brilliant, muslin, huckabuck and colored cloth or flannel. You will see to what uses they will come. There is not a bright bit of cloth the size of a wafer which will not come in play, so you will look twice after this before putting scraps into the waste-bag.

The Allendale bed-spread is homely and wearing thin, but there is no hope of changing it for the pink-and-white Marseilles Phebe would like. Line the Allendale with the sound part of old sheets to strengthen it, and with coarse cotton work a block in cross-stitch in the front corners, using the check of the quilt for a guide. If the walls are light and carpet tasteful, the coverlet, toilet cover and general tone of the room may be blue and white, in which case work the quilt in light blue alone. But if things are shabby and want to be brightened, use the gay blue and red so much seen in French bedrooms, or the still brighter blue, red and orange in Prussian taste. Work the red block, leaving the centre for pale blue, and these two corners you can do on a Saturday afternoon in an hour or two. The next leisure day join these corners by three rows of cross-stitch, making a border for the front. The centre is to be filled next, and as the stitches are from a quarter to an inch long, the work will grow rapidly, and the quilt may be ornamented much or little as you please in this manner.

Next you want pillow covers and an overlay for the sheet. I suppose you know them better as pillow-shams and sheet-shams—vulgar names which

you will do well to avoid, as they suggest nothing so much as soiled sheets and pillows under their finery. They are no more sham than the coverlet, and have their use in keeping the bed neat while the chamber is one's sitting-room. You will like the fancy which English ladies have taken from Russian houses of



HOME-MADE BORDER FOR COVERLET, PILLOW COVERS, ETC.

wealth, of trimming the bed linen with colors. I have seen this in a Russian guest-chamber where the fine homespun linen of towels and covers was deeply bordered with Turkey-red cotton edged with wide-knit lace in hunting-patterns, much finer and heavier than any torchon we see, and the effect was very pretty. In Russ mansions these bands of blue, red, orange or green cotton border the glistening linen damask spreads and hangings, and are wrought with many-colored silks and gold thread. The Persians and the finest East Indian workers embroider plain cotton with gold and floss, so you must not think of it as an inferior material, or an imitation effect. In all artistic handiwork the quality of the work gives value, more than the worth of the materials — which I hope you will remember, and never allow yourself to set a stitch on cotton or flannel which you would not on silk or velvet.

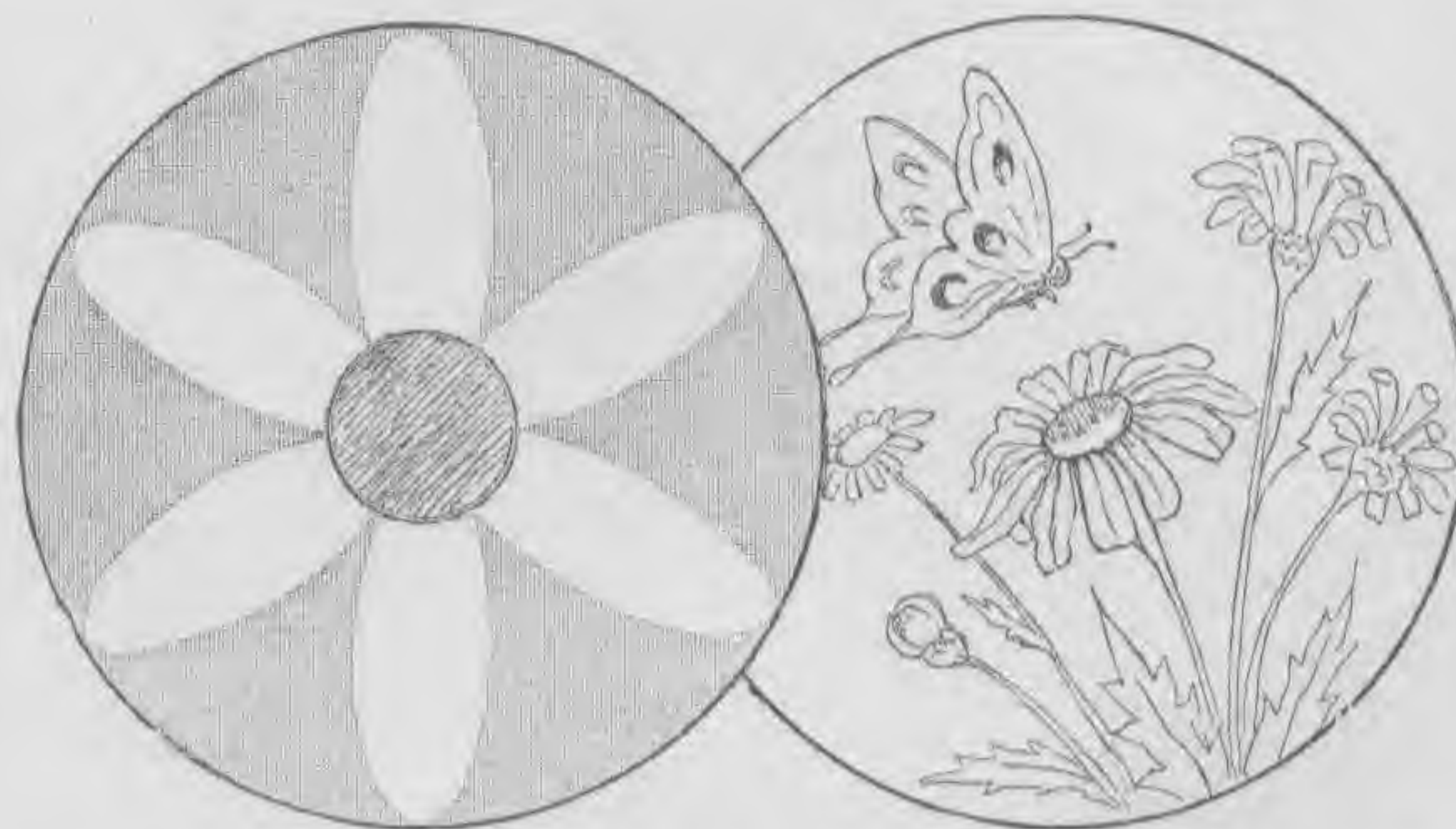
Old cotton or linen, the corners of sheets, or the backs of shirts, will serve for pillow covers if they will bear washing once a month or two, as they have no wear. Do not attempt to tuck the covers, as it is troublesome work at corners. Measure the cotton three-quarters of a yard square, and hem this two inches wide; then, if your spread is blue and white, border the pillow cover with light blue silesia, plain gingham, linen or percale, three inches wide including seams. Next to this sew an insertion of hand-made lace, rough-and-ready trimming tatting, crochet or knit lace as you please. Old skirt trimmings can be used in this way, cutting out worn parts. Then add a narrower band of blue and an edging of strong lace, making a showy dressing for a bed. But if you have chosen gay colors for the spread, the pillow covers should have a strip of blue two inches wide sewed to

one of red, the darkest shade of Turkey-red cotton, of which there are three or four shades, finishing the red outside stripe with stout edging from one and one-half to three inches wide. Turn the corners squarely, sew bias, open the seam and overcast it. Baste this border on the white centre, to be changed when that is washed. The border will outlast several centres.

The overlay is a quarter-yard of white sheeting, wide as the bed, trimmed with red, blue and lace to match the pillows, and when the bed is made, this is laid above the turned-down edge of the upper sheet.

Should you fancy a gayer, more foreign effect, cross the blue with zigzag pattern in red star braid or chain-stitch, and work the Turkey-red border with daisies, foils or stars in blue braid or stitch, alternately with the same figure in white and blue. Lastly, darn the lace with a few stitches of color in its pattern, working the wheels in red or blue alternately. The daisies may be cut out of white or blue cloth and sewed on the stripes, but the braiding, or the long outline stitch which takes two stitches to a petal, is the easiest. A yellow centre cut from cloth will add to the daisy effect of your flower. A coverlet of three-inch stripes of red, blue and a five-inch stripe of unbleached or white cotton, running lengthwise, with daisy figures and lace border, is very pretty and rapidly made. But I think that to work the overlays, toilet cover and big pin-cushion in this way will satisfy your ambition.

Short full white curtains no longer than the window are in fashion for cottage bedrooms, and are pretty, trimmed like the bed described, having the bands across the upper and lower edge of the curtain instead of lengthwise. They open in the middle and are drawn with rings on a bar, or on the hard white cotton cord used for clothes-lines. The cur-



1. — DAISY PATTERN IN
APPLIQUE.
2. — PLAIN DISK.

3. — DAISY PATTERN FOR OUT-
LINE STITCH OR PEN
ETCHING.

tains would look well with a heading, which should be darker than the other furnishings of the room. If we only had strips of cloth to set in harmonious shades of garnet, golden bronze, and pale peacock-blue, with primrose in the tassels! But we haven't, Phebe, and the only stuff to be spared is the widths

of your old brown-wool dress. What else? There are large pieces of scarlet flannel, and old red shirts, an end of black velvet two inches by three, some blue flannel from your sacque, and old ribbons faded and creased. Wash them with a flannel dipped in warm suds, rinse by dipping in cold water without squeezing, hang to drain and press under thin cotton when damp. Dampen and iron all your other pieces. Contrive a piece of brown stuff at least a foot deep and five inches longer than the width of your window. No matter if it is pieced; the work is to be seen at a distance. Have you enough scarlet to make a band three inches wide for each of your two window-headings? Never mind, but here is blue enough for one, and buff wool delaine, the edge of a child's frock, for another, a yard of black cotton velvet, and some ends of ingrain carpet, and Bobby's old worsted tie in Roman colors, every thread of use. Iron three or four old newspapers smooth, and baste several folds under your brown heading to interline and stiffen it, with any thin cotton for backing. An inch from the lower edge of the brown stuff baste the black velvet smoothly, lengthening it by a block of dark-blue flannel at each end. Don't turn edge under, but let one end overlap, with raw edge out. Above the velvet baste a band of red flannel, *not* turning the edges under. For the lower band of the other heading, use a strip of black merino with this old black silk, from which you must draw the cross threads in the middle, leaving a quarter-inch on each edge to hold the work. This gives a raised glossy black band not unsuitable to go with the black velvet of the other heading. Above this, baste a band of dark blue.

Between the black and scarlet run a soft dull-blue worsted braid to hide the join, and a narrow yellow braid just below it on the black stuff, with blue braid on the upper edge of the scarlet. These braids are narrow skirt-binding, and quarter-inch braid of the same kind, or strips of blue or yellow cloth may be used, with edges carefully trimmed. From your brown stuff cut five round pieces two and one half inches across, paste them on a thick paper, and baste

these disks on the scarlet at equal distances, and outline them with blue braid, and narrow black braid outside this. Cut dozens of round and three-cornered bits, half an inch across, from bright cloth of every color, and paste on the brown heading a red and a blue bit, a red and green, a blue and buff, and then work long spider-like stitches in gay colors between them till the ground is well covered. Thread half a dozen needles with different colors, and take a stitch in blue, followed by one in pink, then green, mulberry, golden brown, dark blue and scarlet, and so on till your brown Thibet is a quaint stuff shot with a network of gayest colors. Ravel old ribbons and silks, and unpick knitting-work, if you are in want of color, using the silk ravellings many double. Every finger-length will help in this kind of work, for you do not bind or fasten your stitches, but cut the thread off with half-inch ends on the under side, and touch them with thick gum to secure them. This is the "crazy stitch" of art-needlework, useful whenever plain ground needs brightening. Bands of such work in bright silks are embroidered on handsome dresses. It is really a notion caught from the long stitches of Decca Indian shawls. You will put buff and brown disks on the blue band of the other heading, and outline then with scarlet braid, the same color which divides the bands, the brown ground to be worked in "crazy stitch" like the first one. This is very pretty in reality if each stitch is exactly an inch long, and no two stitches touch of the same shade. Finish by working the black lower bands in a deep buttonhole stitch, the whole width of the black, in varied colors, not more than three stitches of the same shade together, and each half an inch apart, fastening the ends well. Below this goes a fringe of combed wool tassels, for which directions will be given. Your dull material has disappeared in a piece of decorative work of warm and pleasing color. The scarlet and the blue were coarse enough, but the shades of braid and embroidery between have softened and, as we say, harmonized them.

OLD OCEAN.

BY ERNEST INGERSOLL.

II.

WAVES AND CURRENTS.

IF I start with the remark that the earth rolls from west to east, it is not because I think you do not know that, but to lay the foundation for some-

thing further. Surrounding the globe is the great envelope of the atmosphere, forty miles or so thick, which revolves and travels with it, and is really a part of the planet. But this atmosphere is so light that it does not revolve quite as fast as the solid earth whirls within it. It hangs back a little. If (as is near the truth) a certain point on the equator—say the city of

Quito, in Ecuador — is moving at the rate of a thousand miles an hour with the spinning of the globe on its axis, the atmosphere there only moves at the rate of 995 miles an hour. Of course, such a lagging back of the atmosphere must produce a steady wind in an opposite direction to the revolution of the earth, or from east to west, and at the rate of five miles an hour; and such a wind actually does blow all the year round in the neighborhood of the equator. It is called the *trade-wind*; and it has important influences beyond the cooling of the hot regions, or the fact that a ship may set its sails and ride before it for weeks without the trouble of moving a spar or losing a moment's time.

But before describing these influences upon the great currents of the ocean, let me call your attention to another matter — that of waves.

This simple matter of waves has caused a deal of discussion among philosophic men who were trying to explain it. It has generally been said that in waves the water does not move along, but simply rises and falls. Complicated instruments have been made to show how this is, but you can illustrate it yourself by fastening a long strap at both ends, not drawing it very taut, and then giving one end a sudden jar; you will see a line of waves run the whole length of the strap, though certainly the leather does not move forward. But water is not confined at the ends, and it is only a very peculiar jarring disturbance in a confined space that causes water to toss up and down without any motion ahead. On the contrary, though to a certain extent all waves are tremors which run across the surface faster than the heavy water can travel, and so a floating plank will seem to toss up and down in the same place while the waves go rushing under it, letting it rise and fall on their heaving ridges, yet the water in the waves goes forward all the time; and it moves faster than the floating plank, because it is lighter and is more easily pushed along by the wind. Watch the sea or lake when a breeze is ruffling its face or a gale is crowding down upon it and urging it into violent disturbance. You see the long curving ridges of water coming swiftly on, one close behind the other, all marshalled in the same direction like long ranks of soldiers, and at a thousand points breaking into lines of hissing foam. Each of those ranks of angry green water under this gale from the north has a long rounded curve on its hinder slope, in the direction from which the gale comes, but its southern front is almost straight up and down — a wall of water, as sailors say of the huge waves of mid-ocean, which, when you are in front of them, seem to tower overhead as though the whole mass would the next minute topple over upon the ship and you. Sometimes the crest, urged by the gale, *does* lose its balance and crash forward in that sparkling, resounding cataract which we call a "white cap." Surely this water is moving ahead — racing on like a frightened herd of white horses whose snowy manes of cold sharp spray dash fiercely in our faces as we

sit on the open deck or stand at the end of the long pier. Such a tempest will drive the water upon the coast it beats against, until it raises the level of all the river-mouths, fills up all the bays, floods the salt marshes and throws the surf far beyond its ordinary mark. On the other hand, where a strong gale blows off a coast, it carries the water out until wide areas of rarely seen bottom are exposed along the shore.

I conclude, then, that waves do not simply lift the water up and let it down again, but that they also bear it along with a speed proportionate to the power behind them.

Now in the tropics, as I have said, the trade-wind blows steadily from east to west right around the earth without stopping. This gives it a tremendous space of water to pass over, nearly 10,000 miles in a stretch at one place across from South America to Australia. If one short breeze or gale can set the sea flowing strongly upon a certain coast, and even turn back the currents of large streams, then surely this strong and ceaseless trade-wind will set the water of the tropics flowing steadily in its own direction from east to west. And it does do this; but it is greatly helped by another agent of nature.

The drops which make up a body of water are the most restless things in the world: they are always sliding down the least slope, sinking out of the way of lighter substances, rising to let a heavier object pass down beneath them, or moving hither and thither in endless search of that levelness and quiet which we call *equilibrium*. Furthermore, when water is heated it becomes lighter. If, therefore, a portion of the sea grows more warm than the rest, it will rise to the surface; and whenever a portion becomes cooled below the ordinary temperature it sinks.

Now under the blazing sun of the torrid zone the surface-water of the sea gets very warm indeed and never has any chance to cool, while in the arctic and antarctic regions the ocean is always chilled by permanent or floating ice until it is nearly cold enough to freeze; but these masses of warm and cold water cannot remain separate in the one great ocean. The hot tropical flood continually rising *must* flow away somewhere to find its level, and it can flow nowhere except towards the poles, for there the ever-sinking volume of chilled and therefore heavier water sucks it in to take its place, while it, in turn, flows underneath toward the equator, there to fill the gap which the escaping warm water leaves behind. So we know there is constantly going on an interchange of water — a constant flowing away from the equator northward and southward on the surface, and a flowing in towards the equator along the bottom; an endless springing up in the torrid zone and a steady settling down of the polar seas. One out of many proofs of this fact is, that the mid-ocean abysses, five or ten or more miles deep, are known to be ice-cold. This could not happen unless they were constantly filled and refilled with new water from the great coolers at the poles; for if the water at those depths should remain un-

changed it would quickly become very warm from the heat of the interior of the earth.

But while this invisible *vertical circulation* is going on, another more visible and interesting set of movements is in progress on the surface, forming what are known as *ocean currents*. These are vast rivers in the ocean flowing across its face in certain directions and to a certain depth, as rivers make their way along the land. They begin and are kept going by a union of the two causes already explained—heat and wind.

The heat of the sun at the equator warming, lightening and evaporating the water, constantly tends to draw the colder water from the poles, and particularly from the great antarctic sea. The cold water, hastening to the equator, is soon interrupted by the extremities of Australia, Africa and South America, and so split into three great branches. That which passes into the South Atlantic goes on northward along the western coast of Africa, getting so warm under the hot sun of these low latitudes that it will not sink, as has the great mass of the water which first left with it the ice-zone, but comes more and more to the surface, until it strikes against the great shoulder of Guinea and is turned sharply westward. Now it is squarely under the trade-wind and headed the same way; constantly urged forward by this moderate but

endless tugging of the wind upon its waves, the current can never swerve, and flows along the equator, and for half a dozen degrees each side of it, straight across the Atlantic. South America, however stands in its path, and the wedge-like coast of Brazil, pointed with Cape St. Roque, splits this great river. Part of it now turns southward and swings back across towards Africa, making an eddy a couple of thousand miles wide in the South Atlantic, and another arm runs down the Patagonian coast. But by far the largest part of the divided current is sent northward, past the Amazon and the Orinoco and all that low steaming coast of upper Brazil, in through the mazes of the Antilles, to the pocket of the Carribean Sea, and thence struggles out between the larger islands of the West Indies into the North Atlantic. It used to be thought that out of the Carribean Sea all this moving flood poured into the Gulf of Mexico, and thence out; but now it is known that the trough between Yucatan and Cuba is not deep enough to give it passage, nor, if it were, is the pass between Florida and Cuba large enough to let it out. Nevertheless it keeps the old name, and, I suspect, will always be known as the *Gulf Stream*.

NOTE:—The remainder of this chapter, for want of space, is carried over to next month.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

II.

TERPANDER AND THE LYRE OF GREECE.

NEARLY a thousand years before Christ, there appeared in Greece, according to the ancient traditions which were often half fact, half fable, a most enchanting player upon the cithara—the Greek guitar—named Arion. Like all artists of these early times he was supposed to be descended from the gods. He was the inventor of dithyrambic poetry, as the festal songs of Bacchus are called.

He was beloved by Apollo, the god of music. On one occasion he went to Sicily to engage in a musical contest in one of the airy temples of that flowery and sun-flooded isle. He won the prize, was crowned victor and loaded with gifts. While returning to Corinth elated with his triumph, he was attacked by the sailors, who told him they were about to murder him in order to secure the gifts that had been bestowed upon him in Sicily.

“Grant me a single request,” said Arion.

The sailors promised to respect the request if it were possible.

“Let me once more seek delight in playing upon the cithara and in song.”

He put on his festal attire, and, taking the lyre, went to the prow of the ship. He began to play a passionate air, invoking Apollo for aid. The sailors listened as though held by a spell. Dolphins came near the ship and followed the sound of the music. Suddenly Arion threw himself into the sea, and one of the song-loving dolphins received him on its back and bore him to the shores of Corinth. Arion and his lyre were placed among the stars by the mythologists, and the story made sacred to the Greeks the instrument which had so wonderfully won the favor of Apollo.

According to Ovid, Apollo built the walls of Troy by enchantment: he played the lyre, and the walls arose about the new city as if by magic, and stood in the clear air forever sacred to heroes and to art.

The Greek lyre was a kind of harp or guitar. It was first made of the tortoise shell with strings. It

is said that once, when the Nile, after overflowing its banks, had receded and left many dead and dried tortoises upon the land above, Mercury chanced to strike his foot against a shell, which sent forth such a sweet sound that he made of it a lyre.

The number of strings of the first lyres was three; these were increased with the development of musical art. The shell also gave place to elegant and graceful frames made to represent fruits, flowers, birds, animals and divinities.

The lyre of Orpheus, in form a harp, had seven strings. This was the lyre of Terpander, of whom we shall presently speak. Soon followed the pipes of Pan, a reed instrument for the mouth. The pipes of Pan, a bunch of reeds or pipes bound together, were the

of trumpets and noble choruses. The odes of Pindar were written for the lyre, and those of Anacreon and Sappho were so sung.

The poems were chanted in immense theatres and temples, the ruins of which still remain. They consisted of hymns to the gods, songs in the praise of heroes, ballads of love, and long descriptive narratives of history. Even the tragedies of Sophocles were presented with musical accompaniments. The epics of Homer were sung by the rhapsodists, the impassioned singers of ancient Greece, to the music of the cithara. Homer was the Shakspeare of Greece, and only the greatest masters of music were able to chant his poems, as only the greatest masters of eloquence are able to present Shakspeare to-day.



SINGING A POEM OF HOMER.

first organs, as the three-stringed lyres were the first pianos. What is a piano but a harp in a box? and the lyre of Mercury was really a simple harp.

In the preceding chapter we described the great Hebrew oratorios. Greek music was wholly different from the Hebrew, and was arranged for another kind of poetry. The orchestra consisted of the lyre, flute and pandean pipes and the trumpet. It was used to accompany the recitation of poetry.

The poem was chanted or intoned. It was called lyric because accompanied by the lyre. The recitation was introduced by instruments, and was interspersed with sweet interludes of pipes and reeds, and made dramatic at the proper places by the sounding

How entertaining must have been the stories of Homer chanted to the music of the lyre!

Let us fancy the scene of the first great triumph of musical art in Greece in that far dim period nearly seven centuries before the Christian era.

It is a gala day at Sparta, the Feast of Apollo Carneius. The city is the home of heroes. At the feast there is to be a musical contest, and a new musician is about to appear. Like David when he came to Saul, the new competitor comes from the fields. He was born at Antissa, where the grave of Orpheus was shown, and where nightingales were said most sweetly to sing.

Crowds gather and flit hither and thither among

the forest of airy columns; but presently all is hushed in silence at the first sweet tones of the lyre. One contestant after another sings and plays; then appears the young minstrel of Antissa. He touches his wondrous seven-stringed lyre: music comes forth such as the world has never heard before, new tones, new chords, new and wondrous notes to eternally harmonize with song. The gay throng is swayed, enchanted and enraptured. The minstrel is crowned victor, and he resolves to live in Sparta and to establish a new school of music there. He was the inventor of the heptachord, and the first to arrange

words to music and set the poems of Homer to the lyre. He was the father of Greek music — Terpander.

The period of the Greek lyre lasted nearly one thousand years. Lyric poetry declined in Greece to arise in Rome. St. Paul is thought to have quoted from Menander, the Greek lyrist, and Virgil dedicated his wonderful Fourth Eclogue, called the "Pollio," which so mysteriously seems to prophesy of Christ, to the muse of Apollo so soon to pass away. With the coming of Christianity the reed succeeded the cord, the organ the harp, and melody and harmony the Greek rhapsody.

THE TRAVELLING LAW SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

II.

THINGS ONE CAN OWN.

"Property is the fruit of labor; property is desirable, is a positive good in the world. That some should be rich shows that others may become rich, and hence is just encouragement to independence and enterprise." LINCOLN—*Chips from the White House*, p. 262.

PROPERTY is a difficult word. One way of learning its meanings is to read them in dictionaries and cyclopædias. For the Travelling Law-school a better way is to take notice of the various kinds of property we see. A city like Boston contains a great many different kinds. And all useful things are not "property." Air is not considered property, neither is light; though they are absolutely necessary. There was once a large and expensive store built by the side of a beautiful garden. It was somewhat dark and close, and the shop-keeper cut some windows in the side wall to let light and air into the store from above the garden. The owner of the garden asked the court to forbid this. "I cannot," said the judge; "the shop-keeper is only cutting holes in his own wall; he has the right to do that."

Said the garden owner, "But he is stealing the light and air above my garden."

"No," said the judge, "the light and air over your garden are not your *property*. While they are over it you can use them; but if they fly off and enter your neighbor's windows it is not stealing for him to use them."

Then the gardener returned home, and began building a wall on the edge of the garden, up—up—till it was covering the windows. The owner of the store then asked the court to forbid this wall. "I cannot," said the judge; "he is only building a

wall on his own land; he has the right to do that."

Said the garden owner, "You decided that I had the right to cut windows."

"So you have," said the judge. "You have the right to have windows on your land, and he has the right to build a wall on his."

"But he is stealing the light and air from my windows."

"It is not stealing," said the judge, "to obstruct light or air, for neither is property."

If this had happened in England, the judge would have asked, "How old are the windows?" And if they had been built more than twenty years he would have called them "ancient lights," and would have forbidden the building of the wall against them. But in most parts of this country ancient windows have no better right than those newly built.

Probably the chief reason why air and light are not property is that there is no need and no way of doing either up in parcels so that any particular quantity can be kept separate. A chief idea of property is, *something that can be measured in quantities for sale*. This cannot be done with natural air and light: how then can they be property? But the gas used in cities for lighting is made in a great retort, and runs in large pipes underground to the various buildings, and in each building it runs through a meter which measures every cubic foot, and then through small pipes to burners in the rooms; and there, when a screw is turned, it rushes out and one can light it with a match. A man once contrived to get gas for his house without paying, by boring a hole into the large gas-pipe and inserting a small pipe which brought some into his house. This house was in Ashland street in Boston. The gas company prosecuted the man for stealing. Said he, "It is not

stealing, for gas is only a kind of air: now air is not property."

But the judges said that air manufactured to be burned and kept stored in tanks or pipes is property, and taking it without leave is stealing. If two divers went down, carrying each a tank of air to breathe, the air which each carried would be his property; the other could not lawfully take it from him. Some person has said that he has invented a kind of wall paper which during the daytime will absorb the light and at night will give it out; the wall will shine so that one can read by its light. When this is accomplished the light stored in a roll of such paper will be property.

Is water property? When it has been gathered in casks or in bottles, as Congress water is, so that it can be carried to and fro, it is. When it is running in a stream, it is not; the person who owns the land through which the stream runs has the right to use it: for example, he can build a dam and use the water to turn a mill-wheel; but he must let it run on its way down the stream, so that all who live below can use it for their mills if they desire. In winter, when the water of great rivers and ponds freezes, the ice is free to every one until some one has begun gathering it; as fast as any one takes particular ice it becomes his property. One winter some ice gatherers selected a spot on the frozen surface of the Mississippi where the ice was clear and good, and marked corners with stakes, and plowed a line around a quantity which they thought would be enough to fill their ice-house. They placed a watchman in charge of it until a good day came for cutting it into blocks and carting it home. They then went to cut it; but a rival dealer accompanied by fifty men armed with clubs, ice-picks and pistols, came to the place, drove away the first party, and cut and carried away the ice themselves. When they were prosecuted, they said, "Ice is not property."

But the court said, "The surface of a great river is free to all; and whoever marks a plot of ice for market becomes entitled to it as the first comer."

The land, and the buildings of which we see so many in a great city, are property; and this kind is so important that it is called *real estate*, or *real property*. The land belongs to some owner, even in wild and desolate places where there are no fences nor any cultivation. If not a part of any one's farm, still there is some one who owns it, or it belongs to one of the governments; the town or county, or the State, or the United States. No one has the right to take land for his own as he may ice in a river, merely because it is wild and unoccupied. One who tries to do this is called a "squatter." The land surely belongs to some one, although to find the true owner is sometimes difficult. So many people wish to live in the cities that the land becomes very valuable and the buildings are placed very close together. The buildings are considered part of the land, because they are built on foundations planted in the ground,

and cannot be moved away. Property which can be moved from place to place, such as the furniture in the houses, the merchandise in the stores, and the vehicles in the streets, is called *personal property*, or sometimes *chattels*. Almost any grown person can explain about owing land or buildings, and about hiring them; also about chattels and how these are bought and sold. One curious rule is that the real property is subject to the law of the State where it lies; the land and the buildings in Boston must be sold or hired according to the law of Massachusetts, no matter where the owner lives. But chattels or personal property are subject to the law of the State where the owner of them resides. Another curious rule is, that if one wishes to sell real property it is necessary that he should give a *deed*. When chattels are sold, no written paper is necessary; for example, one can enter a store, select an article, pay the price, and, if the merchant delivers the thing to him to take away, or sends it home, it becomes the property of the buyer merely by this "delivery." Not so when one wishes to buy houses and lands. He needs a deed. A deed is a long paper, partly printed and partly written, which gives the names of the seller and the buyer, and describes the land very carefully, and the buildings, and says that they have been sold for such and such a price. So also if one wishes to hire a farm or a house, unless the time is very short, he must take from the owner a *lease* stating very distinctly what property he is to hire, how long he may keep it, and what the rent is to be.

Are animals property? There are two kinds. Domestic animals, such as horses, cows, sheep, hens, are property. In some States dogs are property, in some they are not. Wild beasts and birds in the woods, or fishes in the sea, do not belong to any one; if, however, a person catches one it is his property for the time being; but if it escapes and is at large again, the property of the one who first caught it is lost, and any one may take it. If my horse strays away he belongs to me wherever he goes. But if I have a menagerie and the lion breaks loose, any one may shoot him. Whether any one may catch and keep him is, perhaps, a knotty question. A hunter once shot at a deer in the woods and wounded it. The deer ran and the hunter with his dog followed until night. Next morning the hunter resumed the chase and tracked the deer to a spot where it had been killed by another man. The court said that the creature belonged to the hunter who killed it at last, for it had escaped from the other. In England a man lately set a carrier pigeon free, hoping it would fly home as he had trained it to do. On its way some person shot it, and, when he was sued, said, "That bird was not property, for the owner had turned it loose." But the judge said, "It is the nature of a carrier pigeon to fly home; the owner did not turn it loose because he did not value it, but to let it fly home; and it was property while on the way."

HEALTH AND STRENGTH PAPERS.

II.—THE OLD CHURCH GREEN.

IN these days of much anxiety regarding the physical well-being of ourselves, I often revert to the Arcadian simplicity of life in a certain village, far, far inland, some twenty or more years ago—a little white, orchardy village it was—where everybody was well and stayed well for long periods of time, although not one of the inhabitants, so far as I know, held any theory concerning diet, and gymnasiums had not then been heard of there.

I have well in view now a group of school-girls belonging to that village, a group of a dozen. The gray stone school-house stood at one end of the meeting-house green. The village was too small for conventional observances. Even the grandest family kept no servants. There was little disposition, then, to criticize if the elder daughters of twelve and fourteen had so little time after washing up the breakfast dishes for getting to school that they ran like a pair of young Atalantas along the village streets to escape tardy-marks. Not one of the dozen *walked* to school twice a week.

They ran again at recess—the long delightful recess of a country school. Ran—indeed they ran, for the one who reached the meeting-house steps last was, by unwritten but immemorial law, “the catcher,” “the blackman.” Then what races around the old white church! what hidings, what dartings forth, what steady speed, what shouts and laughter, and what handsome, shapely limbs, round ankles, full calves, strong muscles! But this was in the days of heelless shoes. The blood was well drawn down from the wearied brain before the old-fashioned “ruler” sounded on the window-sash.

Not a girl of these swift runners but could scale and leap the high rail-fence to be first at the bitter walnut-tree in the season of this delectable dainty, each there sooner than her mates. Then, too, there was the quiet old mill-pond with its long, deep, still dike hidden in the lush grasses of the meadow-lands. What perils of upset and ducking were braved there as, in stately procession, each girl standing on her raft of a solitary plank and poling herself dextrously along, the gay flotilla made the distance from the school-house to the flume! Too much vim in a thrust of the pole, and the board departed sideways from under your feet and you reeled off into the water; or your plank veered resolutely in-shore, stopping the boat-women behind, in spite of your best poling; but, ah, what balance of poise you gained, what action of the holding-on muscles in the soles of your feet, what control of yourself in exigencies! And after that remained the feat of walking the flume, leaping, sure-footed, from beam to beam

over the whole long, green, slippery length down to the noisy mill-wheels themselves!

As I said, gymnasiums, with their array of poles and bars, were not even so much as talked of in this green, peaceful, bowery village; but just as surely one existed there—a matter of instinct and necessity with the splendid young romps of that school, where even the little girls of Kindergarten size every day swung boldly out into air from the great lightning-rod of the church. Behind the church, whose broad platform was a delightful *plaza* for endless hippity-hop, was the long row of church sheds with their regularly recurring tiers of lower and upper beams. Across the upper beams—a dizzy height to the small children—rested some long ladders, spanning eighteen or twenty feet of space.

Up, in the long noonings, up, from sill to lower beam, from lower beams up the braces to the higher beams, like squirrels went the climbing dozen. What steady heads, to be sure, what equipoise of the whole frame, what command of muscle, as one after another paced, or shoved, or crept along out upon the beam to perch there in a chattering row until school called! But the ladders were best of all. A dextrous leap up from the lower beam, and a rung was caught in the firm brown hand, and off went the leader walking through space, grasping one rung after another until the opposite beam was reached, behind her a long line of followers, whence she passed on to the next ladder—well, it was great fun; and the deep, full, round chests, the harmonious development of muscle, the complete circulation of blood, the fearlessness of action gained there on the old meeting-house green, have stood those young romps in good stead. To-day they all are living—strong, handsome, wholesome, healthy, sunny women, each in a position of influence, and each none the less refined for those gymnastic feats on the old church play-ground.

I cannot take the school-girls of the Reading Union to that secluded village green, but I do tell them that within their own wills lie the means of saving, if not re-creating, health and beauty. Look up the romping games of old times. Ask your country aunts and grandmothers to describe them to you. There is no good reason why in our beautiful forest-circled villages, with their near coverts and dells and dales, the gay inspiring sport of “hare and hounds” should belong exclusively to the boys. This game is better worth your while, both as sport and exercise, than croquet, lawn tennis or archery. Ask your brothers to explain to you its simple requirements, and appoint your “meets” for Saturday afternoons next season; and I am sure you will outdo the base-ball clubs in enthusiasm and fun. You cannot fail of good times, *if you dress properly for the sport.*

WHAT TO DO ABOUT IT.

SARAH GARDINER L. asks very pitifully if the Wise Blackbird can help her about keeping her dress in order; for her cruel mamma and aunts insist that she shall look like a lady and take care of her things herself, as she is twelve years old; and brushing dresses and polishing boots is what she *detests*. That is a strong word to use for such a common and essential thing. What, detest the care to be spotless as a lily, sweet and fresh as lavender, a blessing to those who see her, a part of all fair and comely scenes, instead of something discordant, marring them? I refuse to believe it of any girl who reads this. Now let the Wise Blackbird drop a bit of wisdom in your ears which will take the harshness out of every disagreeable duty in life. In Dr. John Todd's "Letters to a Daughter," he wrote, "Whatever one does well, she is sure to do easily," and words to the effect that what one goes at thoroughly, ceases to be disagreeable. I knew a girl of twenty years ago who took these words into her heart, and they have made work the pleasure of her life. All the careless people who watch her, cry out at the trouble she takes with everything she does; but they are very apt to say, after all is through, "You have such an *easy* way of turning off things, and things always stay done for you." Of course they do. Thorough is the Saxon for through, and anything that is thoroughly done is through with. It is a queer paradox, that if you try to do things easily, to shirk and slur them over, you will always find it hard to get along; while if you put all sorts of pains into your work, and never think how easily it can be done, but how well it can be, you find it growing easier day by day. At last everything seems to come right to your hand, and all things conspire to help you. A girl of twelve should know how to mend nicely both stockings and clothes, and to cut and make most articles she wears. There are plenty of girls who can do this now, but every girl ought to do it. A small book might be written on the care of clothes, but I will only tell you a few labor-saving hints:

Instead of brushing the dust from a gown, or the mud from a drabbed flounce, inch by inch, take your dress out on clean short grass, after the dew is off, and holding by the shoulders, sweep and beat it against the sward, turning so that all sides of the skirt will touch the ground. The grass acts as a fine soft brush, taking out dust, and freshening every part, while it does not wear dresses as a hair-brush or whisk-broom does. Lawn dresses and grenadines are refreshed safely in this way, when a brush would fray them. The flounces and platings of silk are thoroughly dusted, and the hems of drabbed waterproof cloaks are cleansed without the disagreeable need of touching them with the hands. I never saw

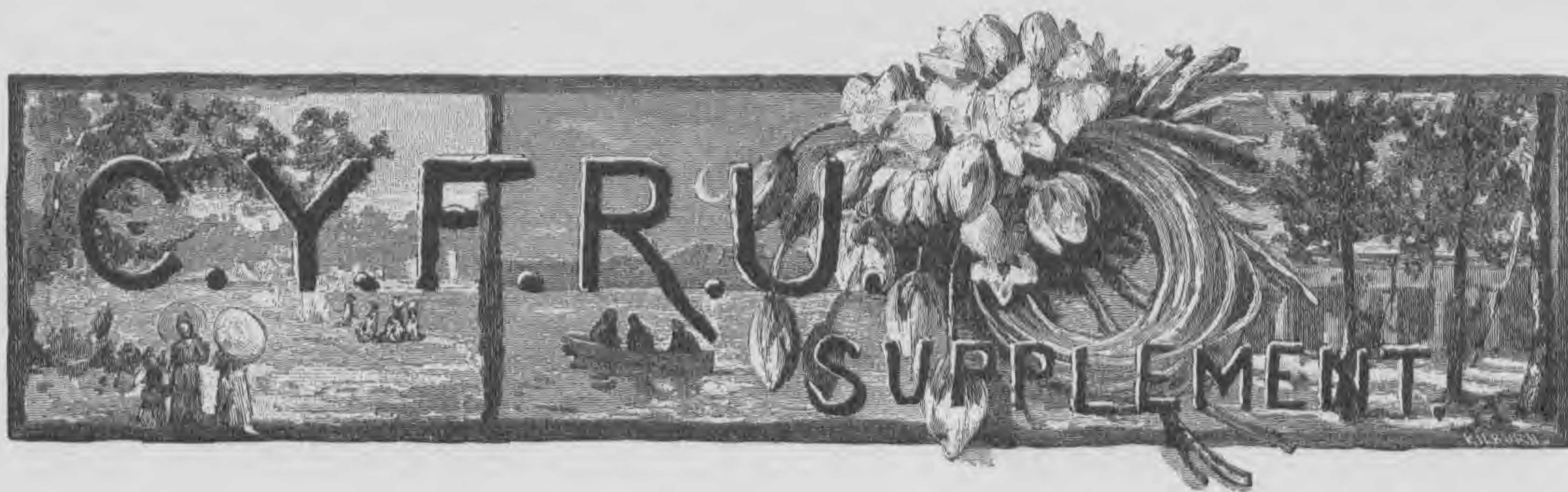
the lightest frock stained or worn in the least by grass.

Pour boiling water through fruit-stains until they disappear, holding the spot stretched firmly. Carry a needle threaded with cotton or silk, to match your dress, and you are ready for accidents. Darn thread gloves, which are always dropping stitches like Jacob's-ladders, with ravellings of old gloves. In the present fashion of wearing mittens you can prolong the usefulness of long-wristed gloves when the finger-tips wear out, by cutting them off evenly at the lower joint, hemming the edges with ravellings, and pressing them with a hot iron, when you have a neat pair of Nell Gwynne gloves.

RORY. "Won't you tell us the meaning of postage-stamps when put on upside down, sideways or across; I have been told each of these ways is significant." Silly people have invented a code of signals by postage stamps, but only very vulgar, ignorant persons who have nothing else to occupy their minds, ever think of such a paltry concern; and no paper which has any respect for the brains of its subscribers will publish it.

CORNELIUS V. H. "What were coats of arms used for?" To distinguish the different chiefs or lords and their followers in battle and abroad, before the common people had learned to read. They were necessary as the uniforms and badges are now to distinguish the various regiments and State officers. The figures of lions, dragons, eagles, and other creatures, the rose, lily and palm, could be recognized when embroidered on the surcoat or garment worn above the armor to protect it from tarnishing, and soldiers could know at a glance when they met to what duke or prince they belonged. At first only sovereigns used these distinctions; afterward all families of noble birth chose badges and figured shields, every design on which was a sign of some trait of which they were proud, their loyalty, courage or ambition. Or the figures recalled some notable event in the fortunes of the family, as the spider, which Robert Bruce watched mending its web in the cave while he was hiding from his enemies, was placed in the royal arms after he became King of Scotland.

BILLY. To make a spangled motto for Christmas, cut the letters out of stiff paper or pasteboard, wash them with weak glue or thick gum, and when sticky-damp, sprinkle with what house-painters call "brocades," which are scales of gilt metal, bronze or silver of different qualities of coarseness. These cost from ten to twenty-five cents an ounce, and you would want perhaps six ounces for a motto of ten words. "Flitters," or fine shavings of gilt or silver paper for the same purpose, are forty-five cents an ounce.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

III.—HORATIUS AT THE BRIDGE.

BY AMANDA B. HARRIS.

IT was a long, long time ago that the one-eyed Horatius did the wonderful thing for which his name has come down to us. He was a young Roman soldier; and the story is more than two thousand years old.

But brave deeds have a kind of immortal freshness about them. They are never left to die. Somebody is sure to pass them on and on by word of mouth, and they become tradition; or somebody writes down the events, and they become history.

First about Horatius Cocles' eye. *Cocles* means "born with one eye, or that hath but one." There are two stories told: One is that Horatius was born with such a singular formation of face, having a nose so flat that both his eye-brows and his eyes seemed to meet and join together, that to appearance he had but one eye. The other is that he lost an eye in the wars.

I shall always believe the last account—that so brave a youth had the beauty of his face spoiled by one of those piercing missiles which the soldiers of that time used in battle; for he had been a fighter from the day he was old enough to enter his country's service.

It was a custom of the Romans to give a man a surname on account of something he had done, or from some peculiarity about his person or character. And the common people did just as their class do now—they applied what we should think a nickname; and then, as now, the owner was apt to be best known by it. No doubt those who were acquainted with Horatius meant to call him Cyclops, after the giants who had one eye in the centre of the forehead; but in some unaccountable way they made it Cocles instead. So Horatius *Cocles* he became; and, as Plutarch says, "the name remained with him."

In all the two hundred and forty-six years of its history the liberty of the people of Rome had never been in such peril. They had dethroned their king and banished him; and the struggle was great to keep him from coming back, and to keep out the armies of the neighboring sovereigns whom he had bribed or flattered to help him.

This man, Tarquinius Superbus, or "the Proud," was the seventh and last king of Rome; and also the worst one. And his wife, Tullia, and his son, Sextus, were as bad as he was. He never had a right to the throne at all, but had come into power by a crime which shocked all his people and made him odious from the first. He and his wife had the late king, who was her own father, put to death. He then made haste to have himself proclaimed sovereign in the public square; the bleeding body of the dead old man was thrown into the street, and Tullia, who was such a monster of wickedness in womanly shape that Lady Macbeth seems almost endurable in comparison, drove over it where it lay, though her horror-stricken charioteer desired to turn back.

Such was the coming into the kingdom of the last Tarquin. And still this man, who kept no faith with anybody, who was guilty of the most outrageous acts of injustice, was suffered to tyrannize over the Roman people for five and twenty years.

At last it was a wrong done to a private citizen which brought about the revolution. The shameful treatment of a noble Roman woman, of which the king's son Sextus was guilty, roused such indignation that the whole Tarquin race was driven out of Rome.

The story of Lucretia spread like wild-fire. And when her husband and friends brought her dead body out into the market-place that all might look at her, such cries of horror and execration arose as had never been heard there before. The populace gathered from every street and by-way, furious beyond control. They hissed the name of Tarquin. They

denounced him and howled for revenge. They swore that the family should be rooted out.

The patricians, both men and women, standing by, sorrowful and appalled, approved when they heard the terrible cry: "Down with the tyrants! down with the Tarquins!" With the lower class there was the noisy fury of a mob; the nobles were more quiet in their demonstrations, but the pale mute faces meant doom from which there would be no appeal. And when Brutus stood up and swore, "I will pursue Tarquinius the Proud, his wicked wife, and their children with fire and sword, nor will ever suffer any of that family, or any other whatsoever, to reign at Rome! Ye gods! I call you to witness this my oath!" then there arose a solemn response as if all Rome spoke.

So on that day when Lucretia died, Rome was the same as free. As a kingdom it ceased, and forever. And all the people were amazed at themselves for having borne tyranny so long.

They could not do enough to show their hatred towards the banished family. They tore down the palaces of Tarquin, and laid waste all the grounds that had been his. They cut down the trees and threw them into the river Tiber; and all the sheaves from the fields then in harvest were thrown where the trees had gone. And there was so much of this wreck of what had been beautiful orchards and gardens, that it settled fast in the mud and made an island.

As for Tarquin and his evil household, they fled to a city of one of the neighboring kings, from which he sent back messengers, begging to be restored. Then he tried conspiracy. And when he found that there was no mercy for him or his where they were known too well, he entered into an arrangement with such kings as were glad of a quarrel with Rome.

In those times fighting seems to have been the business of the human race. No child who has ever read a chapter of ancient history can fail to know that. War, war, with *somebody*! A sovereign hardly knew what to do with his people if they were not abroad on some undertaking of the kind.

One who was always ready to march on and attack the city of seven hills was Lars Porsena, king of Etruria. This famous Tuscan was powerful; he had rich cities, plenty of soldiers, and nothing else for them to do. He was close at hand, and it seemed an easy thing to help Tarquin back to the throne.

Rome had by this time become a magnificent city, and it was surrounded by a wall of masonry, each stone of which was "sufficient to load a cast." The towers and battlements were of hewn stone. The river Tiber was also a defence; but there was a bridge across it which would give entrance to an invading army, unless guarded.

It was on this bridge that Horatius Cocles fought at such tremendous odds. He was set there, at the river-gate, as guard, on a certain eventful day when

Lars Porsena, with a vast army at his back bringing Tarquin, came marching on to Rome.

Because Horatius had a post that any private soldier might have occupied, you need not infer that he was of the lower order. He belonged to a patrician family, and was a descendant of one of the Horatii who was victor in the famous contest with the Curiatii. His uncle, too, was at that very time one of the Roman consuls.

Like all the young men of the new republic he had been subject to the severe discipline needful for a soldier. They all were taught to use themselves to exposure, to endure hardship, to carry heavy burdens, to despise fatigue. They were to be always ready for service. They were as truly "minute men" as any who fought in our war of the Revolution.

They were strong of arm and swift-footed, because they had been trained by the most thorough system of gymnastics. They could deal a deadly blow, and knew how to avoid one. Even the sons of rich men had this rigorous preparation which fitted them to do intrepid deeds. They served, too, without pay.

All the people from the surrounding country had fled into the city. And none too soon, for Porsena drove everything before him, and nearing the very walls, made ready for a sudden assault at the bridge. Both the Roman consuls were wounded in the desperate fight by the river side, and were carried out of battle.

Then, shame inexplicable, the soldiers of the republic, Romans, began to desert their ranks, fleeing before the enemy, when Horatius, throwing himself in their way, kept them one by one, warning them in the name of gods and men, that they were leaving to no purpose if they left the bridge behind them.

Meanwhile all was panic in the city. It had been a dreadful day. Everybody was out. Not a woman could stay in her house. Wild-eyed and pale, the Roman mothers, with their children in their arms and clinging to their robes, gathered in groups. The victory of the Tuscans and the return of Tarquin meant fire and slaughter, the lives of the little children trampled out, a horrible fate for all the tender and defenceless, the city spoiled, and freedom lost. It would be doomsday to Rome.

The tumult rose and swelled — that awful sound of war, the tread of many feet, the shouts, the neighing of horses, the clash of arms and hurling of javelins through the air. And where the clamor and contest were, a cloud of dust almost shut out the blue heaven.

Then, as the Roman forces fell back, crowding host upon host, till the city was fast being filled with her own soldiers, the word was passed on and along that Horatius was holding the bridge; whereupon the consuls took courage, and the soldiers again pressed out fresh for the fight.

The voice of this brave youth was heard ringing loud and clear above the din. He commanded his countrymen with axe or sword to destroy the bridge

without delay. *He* would sustain the onset of the foe, so far as one man could, while they were doing it. And he proceeded to the end next the enemy, and, prominent amid the backs of those who were retreating, prepared for a hand-to-hand fight. At this sight two other young patricians, Spurius Lartius and Titus Herminius, filled with shame that he should be left alone, stood by him; and the three met the storm and fought the front of Porsena's host.

Soon those who were hewing down the bridge called to them to come back, for only a scanty part remained on which they could cross over. He compelled his comrades to go; but, instead of saving himself, he strode still nearer the foe. He stood for

and missiles came thick and fast upon this solitary foe; but with his shield he dexterously held his ground, till he heard the crash of the last timber, and the triumphant shouts of his countrymen whom he had saved.

Then crying, "O Father Tiber, you sacred one, I pray receive these arms and this soldier in thy propitious stream!" he leaped, armed as he was, into the river, and though many darts were hurled at him, and he was stabbed in the hip by a Tuscan spear which lamed him for life, he swam over in safety to his friends.

He was received by them with the wildest plaudits. The air rang with shouts of joy. He was the conquering hero of the day. Men and women cried out



HORATIUS STRODE STILL NEARER THE FOE.

Rome, her champion and liberty's, and dared the invaders to come on.

The Etruscan chiefs were so astonished at the sight, the act was so audacious, that dead silence fell on them, and not a hand was raised against him.

Then this bold Horatius had the opportunity, which seldom comes to a man who dares to use it, of saying what he thought about a base act, to the very parties who had been guilty of it. He hurled the truth in their faces. The two armies, between whom the Tiber rolled, looked on and listened. And if there was any sense of honor in Lars Porsena — and he was called a man of "great honor" — he must have tingled to his finger-tips with shame.

At last the chiefs let fly their javelins at Horatius,

that he must have gifts and honors. His statue must be set up.

A decree was passed — very singular it seems — that every Roman should give him one day's provisions. Were the "provisions" supplies of food, grain, fruits, meats — *what?* Then must his store-house and cellar and granary have overflowed! For "even the women gave their quota," and in all there must have been three hundred thousand contributors.

They put up a statue of him in brass — or some writers say copper — in the temple of Vulcan, to console him for his wound, and because he must always go lame — which misfortune would prevent his ever being made consul. Since they could not

give him their highest office, they would do the next best thing. And last, and better than all the rest (if he had the Roman love for agriculture, for their mother earth and the green things she nurtures), they gave him as much land as he could plough around in a day.

And we may believe that Horatius drove his yoke of beautiful Roman oxen in a very large circle

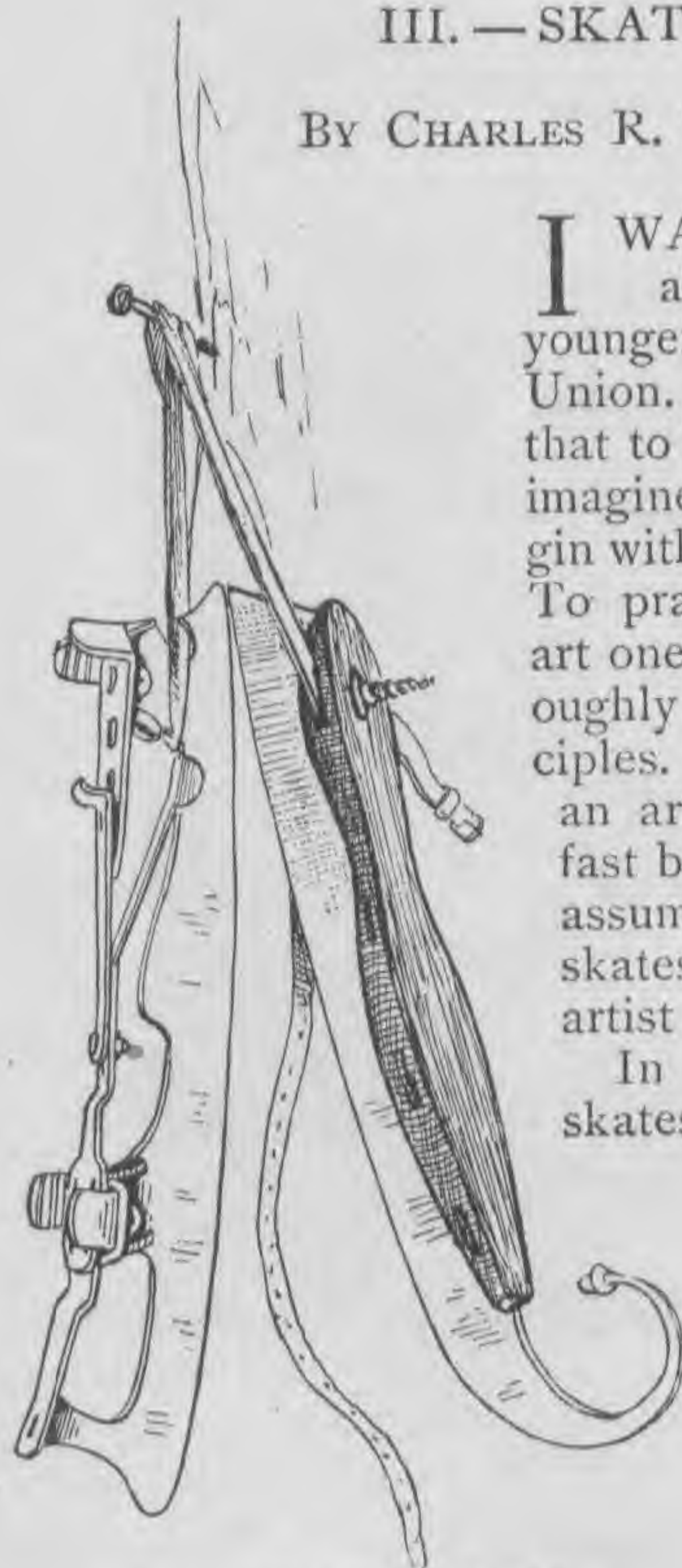
between the rising of that memorable sun and the going down thereof.

NOTE. — The story is found in Livy, book ii., chapter x. Also in "Plutarch's Lives," vol. i., "Life of Publicola;" and in Goldsmith's "History of Rome." Some interesting facts about the training of the Roman soldiers are in Plutarch's "Arts and Sciences of the Ancients," vol. i.; and of the government of the kings of Rome in Montesquieu's "Spirit of Laws," vol. i., book xi. Macaulay gives in charming verse the story of Horatius in his "Lays of Ancient Rome."

WAYS TO DO THINGS.

III. — SKATING.

BY CHARLES R. TALBOT.



THE NEW AND THE OLD.

I WANT to talk a little about skating with the younger boys of the Reading Union. And in order to do that to best advantage I shall imagine you *beginners*, and begin with you at the beginning. To practise successfully any art one must understand thoroughly its first rules and principles. As for skating being an art, it certainly is, or is fast becoming such. And I assume that every boy who skates hopes to become an artist in the exercise.

In the first place, as to skates: Down in the toe of your stocking at Christmas, you found rolled up in a bit of paper one or two or five bright gold dollars; and on the paper written, "To buy a pair of skates." I am glad Santa Claus was

wise enough to send the money instead of the skates themselves. The old gentleman is rather old-fashioned in his notions sometimes, and he might have selected an old-fashioned pair. He is apt to think that the old wooden-soled, grooved-iron skate, with its runner curved up into a brass acorn in front, on which he used to dash up and down the mill-stream thirty or forty years ago, is after all the best thing a boy can have to-day. But the manufacture of skates has improved wonderfully during the last few years; and of all things you want a modern skate.

What sort of skate shall you buy, then? You want

a "Club" skate, *i.e.*, a skate made entirely of metal, with no wood about it. As for the different styles of Club skates, they are all excellent, and the boy who is possessed of any one of them would seem to have all that a skater may reasonably ask for. In making your selection, lightness combined with necessary strength, and a runner so curved that it shall touch the ice only for a few inches of its length, are the qualities you should have in mind. Beyond that, your choice will be determined by the method of fastening the skate. That fastening is the best which can be most quickly and conveniently adjusted and at the same time secures the greatest firmness. The screw at the heel, although still somewhat used, has probably seen its day; and with it, it seems to me, had best be discarded the whole system of strapping the skate to the foot. The best skate is now that which has a "clamp" so adjustable by screw or otherwise as to take firmly hold of the sole of the boot. The "all-clamp" skate has a clamp both at heel and toe. And some all-clamp skates are so arranged that a single movement of a lever beneath the skate or behind it operates both clamps and securely locks the skate to the boot. Such are the "Acme" skate and Barney & Berry's "Ice King." When, in place of the heel-clamp, a heel-plate with a "button" fitting into it is used, it requires the fixing of the plate itself in the boot-heel, and often a heel-strap is found necessary.

For a first lesson, choose a piece of ice of moderate roughness. Take plenty of time to learn to stand well and safely on your skates and to get confidence. Your danger as to falling is not, remember, of falling to one side, but backward or forward. Learn to stand up *straight*. There is nothing so awkward as a skater who leans forward. Avoid, too, swinging the arms about. They should be carried easily, much as in walking. Keep the feet close together, toes turned out, and the legs straight and firm.

Having come to feel somewhat at home upon your skates, and being able, perhaps, to move about a little, you may begin at once upon the Plain Forward Movement. With the left foot firmly planted, the

inner edge of its skate bearing a little on the ice, boldly throw out the right foot until the outer edge of its skate touches the ice. At the same time throw the right shoulder steadily forward and keep the body balanced upon the right leg as long as possible. Then throw out the left leg and shoulder in the same manner, and so continue. If you begin with these rules well in your head, it will save you much painful experimenting. Having learned to make progress in this manner with firmness and power, you will have learned to *skate*. Any other movement, simple or complex, belongs to "Fancy Skating." But, first of all, this plain stroke must be thoroughly learned.

The "rolls" forward and backward are the basis of all fancy skating. The forward outside-edge roll is made as follows: The impetus is obtained as in plain skating; but, as the stroke is made with the right foot, the left shoulder is brought forward, the right arm drawn back, and with the face looking to the right, the whole body is swung easily in the direction of the stroke; then the left foot is lifted from the ice, and, being brought forward, is set down a few inches in advance of the right. The same movement is then made to the left, the right skate having now its inner edge to the ice until ready to be lifted. The Dutch roll is performed in this same manner, save that, perhaps, the roll is not quite so broad, the movement being more nearly in a straight line. The marks left upon the ice are something as in the figure.



FIG. 1.

The outer-edge roll leads very easily to the cross roll, each foot when off the ice being swung, in the latter, *across* the one on the ice and starting in its stroke from the crossed position.

Having become proficient in the various rolls forward and backward, the skater is now prepared to attempt for himself the almost infinite number of figures and movements that make up the rest of fancy skating. Most of these will require long practice. They are, too, for the most part, almost impossible to be described upon paper. You will have to pick them out for yourself, getting what helps you may from those about you who have already acquired them.

A favorite movement, and one easily mastered, is that which used to be familiarly known as "Cutting the Derby." It is now spoken of as the "Left-over-Right," or the "Right-over-Left," and consists in skating in a circle by constantly putting the outside foot over forward and inside of its fellow. A few steps of this figure, thrown in now and then, first to one side and then to the other, makes a very graceful and easy variation of the plain forward roll.

"Cutting the Crab" is another simple figure. While going forward one foot is suddenly thrown out, turned and drawn heel foremost directly after the

other; and the greater part of a circle is then described, the two heels being brought close together and the toes turned straight outward. This is a neat way of coming to a stop if one has plenty of room.

The "Figure of Three" and the "Figure of Eight" have always been well known to skaters. The former begins at exactly the same point at which one would begin in writing the figure, and is performed on one foot, the first part on the outside edge forward, and the second on the inside edge backward. The Figure of Eight is a combination of



FIG. 2.

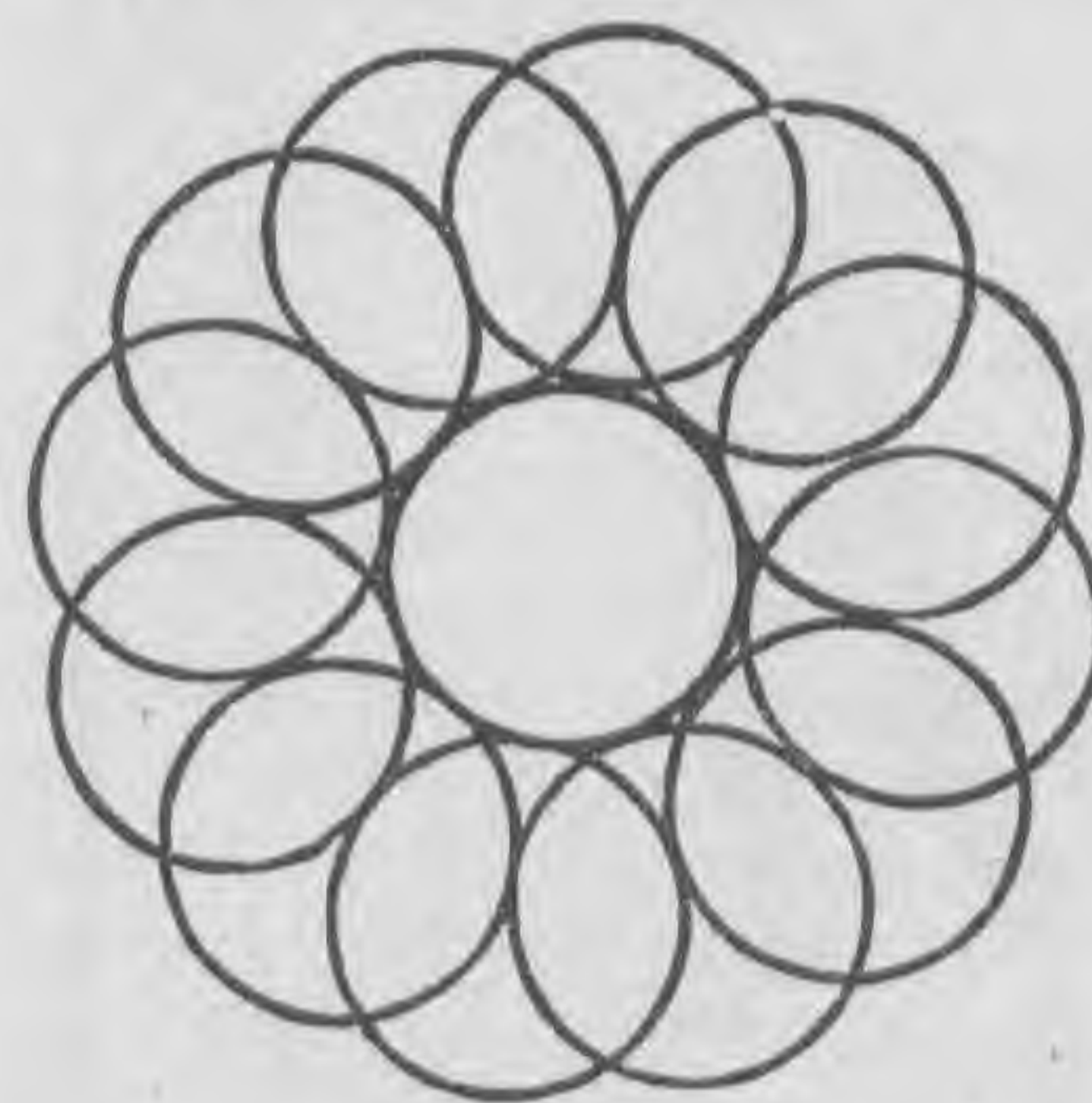


FIG. 3.

two circles. A very pretty "Rosette" is made by combining a number of Figure of Eights, as seen in the figure. In this Rosette, it will be observed, the first circle of the first Eight is gone over again and again, though the second one is constantly changed.

Then there are all the other Arabic numerals to be made, and all the letters of the alphabet; if one be patient and skilful enough. And there is the "Scissors," and the "Grapevine Twist," and the "Virginia Fence," which leaves a mark upon the



FIG. 4.

ice that describes itself, and the "Locomotive," single and double, so called doubtless because the sound of its strokes somewhat resembles the puffings of an engine, and whose track is something as here seen; and there is the "On to Richmond" (cross

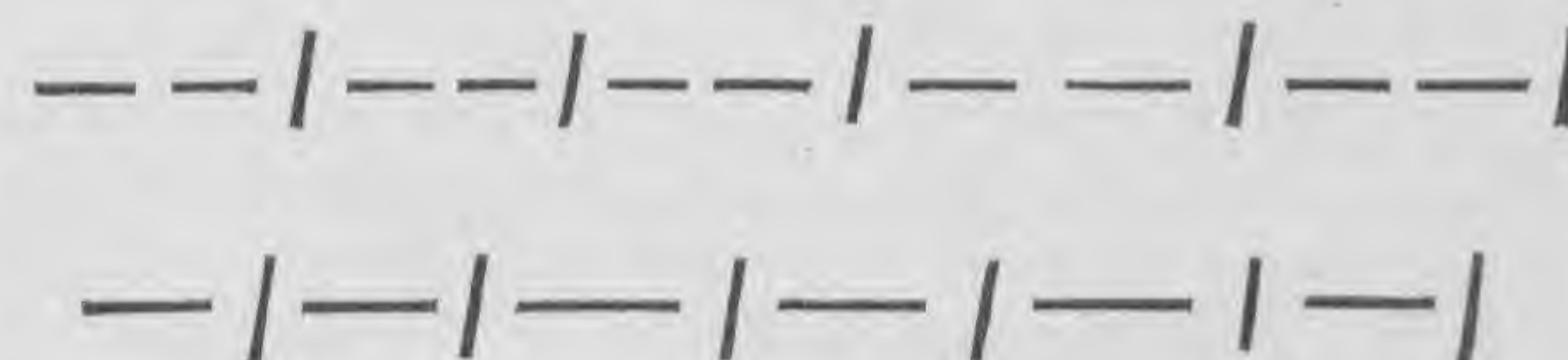


FIG. 5.

one foot in front of the other, and with back stroke outside edge go backward or forward); and ever so many others.

You should see a programme for a skating contest as set forth by the American Skating Congress. I can



GAY TIMES.

assure you that the skaters who carry off the prizes from such contests must indeed be *artists*. And if

you could only get hold of one of these Prize Skaters, and he would go to the pond with you, he could teach you more of Fancy Skating in half an hour upon the ice than I could do upon paper in half a year.

One of the pleasantest things about skating is that the girls can enjoy it as well as, and together with, the boys. And this may very well be an additional reason why boys should wish to learn to skate well. A boy would hardly be a real boy at all who was indifferent to the admiration of his young-lady friends, and who would not wish now and then to display a few extra flourishes and figures if the latter were on the pond to see. Besides, the girls, some of them, are getting to skate exceedingly well; and no real boy, again, would like to be excelled by them at a sport in which his superior strength and experience at out-of-door games ought to give him a decided advantage.

One may have a partner in skating as well as dancing; and having requested the pleasure of skating with a young lady, you two together may execute a great variety of double figures and movements. There is the plain forward movement, of course, you holding the lady's hand, or perhaps with the hands crossed. And you may skate thus, holding a straw between you, each striving to skate so steadily and smoothly that the straw shall not be bent or broken. And you may skate face to face, one backward and the other forward. And you may waltz, or make the Figure of Eight together; or, as you skate forward side by side, with the right hand you may, at one stroke, swing the lady before you to the right, and then, changing hands, swing her to the left again as you strike out in the other direction. And then two couples, skating in one line, may combine this last exercise, and thus the sport be made as social as an in-door entertainment.

DOOR-YARD FOLKS.*

BY AMANDA B. HARRIS.

II.

THE BUFOS.

WHY is there no collection of anecdotes about toads, *alias* the Bufo family? There has been a "Book of Cats;" the spider literature would make volumes; and of writing about ants and bees there is no end. Then, why not toads? They have

ways of their own, and they do things worth telling about. Besides, have they not a market value? And are they not in Shakespeare?

It is really true that in Europe there are places where toads are sold. The country people capture them, and drive a business in selling them to gardeners. And more useful little friends no gardener can have. They make sure work in destroying insects which prey upon the vegetables; and all that the

*All members of the Reading Union are invited to send to the Editors of WIDE AWAKE their own observations of any of the little creatures described in the series, "Door-Yard Folks."

modest Bufos expect in return is room under a cabbage-leaf, or a chance to burrow into the soft mould.

Imagine a Parisian market-day, and a swart, bare-armed peasant-woman with her basket alive with the mottled puffed, solemn-visaged, creepy things, edging her way among the fruit-venders and flower-girls.

Probably in that milder latitude toads do not go into winter quarters; so that they would have to be picked up one by one. Here they could be gathered by the shovelful while in a state of torpor, if all the toads of a neighborhood should do as those did in a certain place not many miles from where this is written.

The story is, that two men went out, as soon as the ground had thawed in the spring, to rebuild a fallen fence. In clearing out the hole where an old post had been, they unearthed a solid deposit of toads, layer upon layer, of all sizes and complexions, and all sound asleep, snug, comfortable, and oblivious till the daylight, so suddenly let in, set them all to winking. The astonished men "took out and took out," as they said, till they had a water-pail full. Whether there were seventy-two toads, or a hundred and seventy-two, I try in vain to remember. But the mere difference of a hundred goes for nothing in this case.

No one supposes this the uniform habit of the Bufos; but they all disappear somewhere simultaneously as winter approaches. And in spring they are often turned up by the spade, several at a time, in very near vicinity to one another.

Two venerable patriarchs, that looked as if they might have been in existence ever since the deluge, used to crawl out just after sunset of summer evenings and establish themselves for the night on our doorsteps. There was one at the side door and another at the front. We knew them as well as we knew the house cats. And we liked to see them there. If they happened to be late we began to wonder where they were; and if they had failed to come at all, we should have been sure that some calamity had befallen them.

Each year they re-appeared, usually waiting till the days were long, so that the sun could lie long enough on the stones to give a good, genial warmth, so comforting to their cold bodies. And they did not depart until the autumn crickets had done piping in the grass.

They were a good deal of company—those tranquil, meditative old toads. We were brought up to protect them, and to take care not to step on them. They were supposed to have their rights. Sometimes they had callers: some neighboring toad would hop up, and sit in quiet and enjoy the cozy stone, and give himself up to the soothing charm of the mellow evening. How they would wink and blink, and seem lost in drowsy content, till some belated insect chanced to pass that way, when out would dart the forked tongue, swift as lightning, and take the poor little victim in!

I have no means of knowing how long it takes a toad to grow up, nor how long his natural life is; those were already grown up when we first noticed them. They were, however, long ago gathered to their fathers; and their successors are little ones comparatively, and rarely do they venture upon the doorsteps. Possibly they are so inexperienced that they do not know what a height of bliss, what restful and soothing sensations, are to be had by sitting on a door-stone on which the sun has shone all day.

Our yard is the favorite play-ground, after nightfall, of two smart kittens, which have been so indulged that they dare to do anything. They have been told again and again that they must not molest the toads, and have had their ears snapped more than once for doing it.

As soon as it is fairly dark these creatures, Buffet and Mixet, begin their antics; chasing one another, and hunting every cricket and grasshopper in the turf. Buffet is buff, and when he has done a piece of mischief, he can easily be detected and brought to punishment. But Mixet is obscure in his colors, being mostly black, variegated on the sides with wavy spots of the fashionable "old gold." He is often meddling with some live thing, himself invisible in the gloom.

This time it was Mixet who was culprit, and it was one of our toads that he was persecuting. There came the most singular sounds, like some animal pleading and entreating and trying to utter a protest against being choked and strangled. It was all gentleness, but had a cadence as if there was terror and anguish at heart. It was more pitiful than if there had been a shriek or a vociferous cry for help.



MIXET MEANS MISCHIEF.

A light was brought, and Mixet was revealed at his old trick, harassing the poor toad, which he was imprisoning with one paw, while preparing to buffet

and toss the terrified thing about. And it had been Bufo's small voice lifted up against his captor which brought us to the rescue.

A more deplorable affair occurred to one of the toads in broad daylight. A faint but agonized utterance, broken but repeated, came to my ear, seeming that of an injured bird; but on looking out, I saw a striped snake in the act of swallowing poor Bufo, who was already half way down the reptile's throat, all the time making a desperate fight for his life, kicking and struggling to writhen himself free. In a few minutes it would have been all over with him. Luckily for him, the dreadful, deadly, unequal contest was put an end to, and the enemy slain. Once on firm earth again, Bufo shook his long legs to see if they were all there, and rushed off into darkness faster than they ever carried him before.

I have not that feeling towards toads which would lead me to take one in my hand as some people will. They are too skinny and warty and clammy. But on the other hand, they are not necessarily repulsive. If they come, as these did, to the door-stone, they seem to identify themselves with it, and belong with the family life, like the cricket on the hearth.

Tradition has done all it could to make toads obnoxious. Bufo has always been maligned. Like the cat, he has been associated with witches. They were "Grimalkin and Paddock" who sat before the fire in company with baboons, while one witch boiled the caldron and others flew up and down the chimney on broom-sticks.

"Paddock" was the north-country name for a toad (sometimes also for a frog), and "paddock-stool" for toad-stool. They were the familiar spirits whom the witches meant in Macbeth:

"I come, Graymalkin!
Paddock calls."

It was a toad that these hags first put into their boiling pot in the dark cave:

"Toad, that under coldest stone,
Days and nights hath thirty-one."

The Bufos are neither uncanny nor venomous. They are ugly, but interesting if you will have patience to watch them. Their colors vary somewhat with the state of the weather or the quarters they inhabit. A drenched toad on a rainy day is a very soggy thing indeed. The curious integument he wears for a skin seems to have absorbed the wettest and most dismal qualities of the weather. At such times he is, beyond denial, an unsightly object.

This very day, which is a warm and sunny one, there is an extremely good-looking toad sitting at her afternoon nap in the sand close up under the house wall. We infer that this is a mother toad, because when first seen there was a minute toadlet (as Coleridge has it) which you might cover with a thimble, tagging after, and it was the very image of the old one. A brown toad will have a following of little ones in brown, and a spotted one will have a brood similarly marked.

We made Madame Bufo the subject of a harmless experiment. Perhaps you will remember that Theodore Winthrop said a frog enjoyed being tickled with a straw, which he would try to grasp "with his wierd little fingers." This toad was gently rubbed with a wisp of dry grass, and was so delighted at the kind attention, that she would turn on one side after the other had been brushed, and lay her head over to have her neck reached, just as a kitten will. It would be the easiest thing in the world to make her tame, if one had leisure for it. She would put out her hands and watch us, and open and shut her eyes, and wait.

The little one we tried to examine through a magnifying glass. But he did not want to be examined. By the time the glass was brought to bear on him, he was not there. He would not stay put. All at once, he vanished. Our eyes had not been off from him but one instant, yet in that instant he disappeared. He was there, and then he was not there. Nor was he to be found anywhere, above, around or below.

Could it be that his mother had swallowed him?

OLD OCEAN.

BY ERNEST INGERSOLL.

II. — (Continued.)

WAVES AND CURRENTS.

WHEN it has worried through the islands and has once more gathered its full force together,

the Gulf Stream flows northward close along the coast of our Southern States until Cape Hatteras gives it a swerve away, when it strikes out to sea and pushes straight across to Spain, where a branch leaves it and runs northward between Iceland and the British Islands, while the main body turns southward to min-

gle again with the equatorial current from Africa and repeat its journey all over again. It is in the heart of this great circle of currents in the middle of the Atlantic that navigators find that dreaded region of heat and calms which they call the Doldrums; and here, too, float round and round the wide, buoyant meadows of the Sargossa Sea.

Meanwhile another most important cold stream is making its way through the Atlantic, known as the Arctic current. It comes down out of Baffin's Bay, joins a similar flood from the outer coast of Greenland, is thrown up to the surface by the Banks of Newfoundland, and meeting with the warm air, produces those thick and prolonged fogs so common in that region, fills Massachusetts Bay with chilly water, and finally, meeting the Gulf Stream off the Virginia

In a lesser way, the Indian Ocean has a strong stream flowing directly across from Australia to South Africa. It is of immense help to the ships returning from China and the East Indies. There are also various minor currents, like that one south of Australia, and the one that forms a great eddy in the Arabian Sea. You will find all of them marked on a map in most geographies, and will understand me better after you have looked them up.

Not all are as well marked as the Gulf Stream. Its brightly blue water is in such contrast to the darker, greenish hue of the remainder of the ocean that sailors can often tell when they enter the edge of the current, half their vessel being in and half out of the stream. If you approach from the east you find that the water at first shows only a warmth of fifty or



IN THE SAME LATITUDE.

coast, dips under it amid that commotion of waters which makes Cape Hatteras a centre of storms.

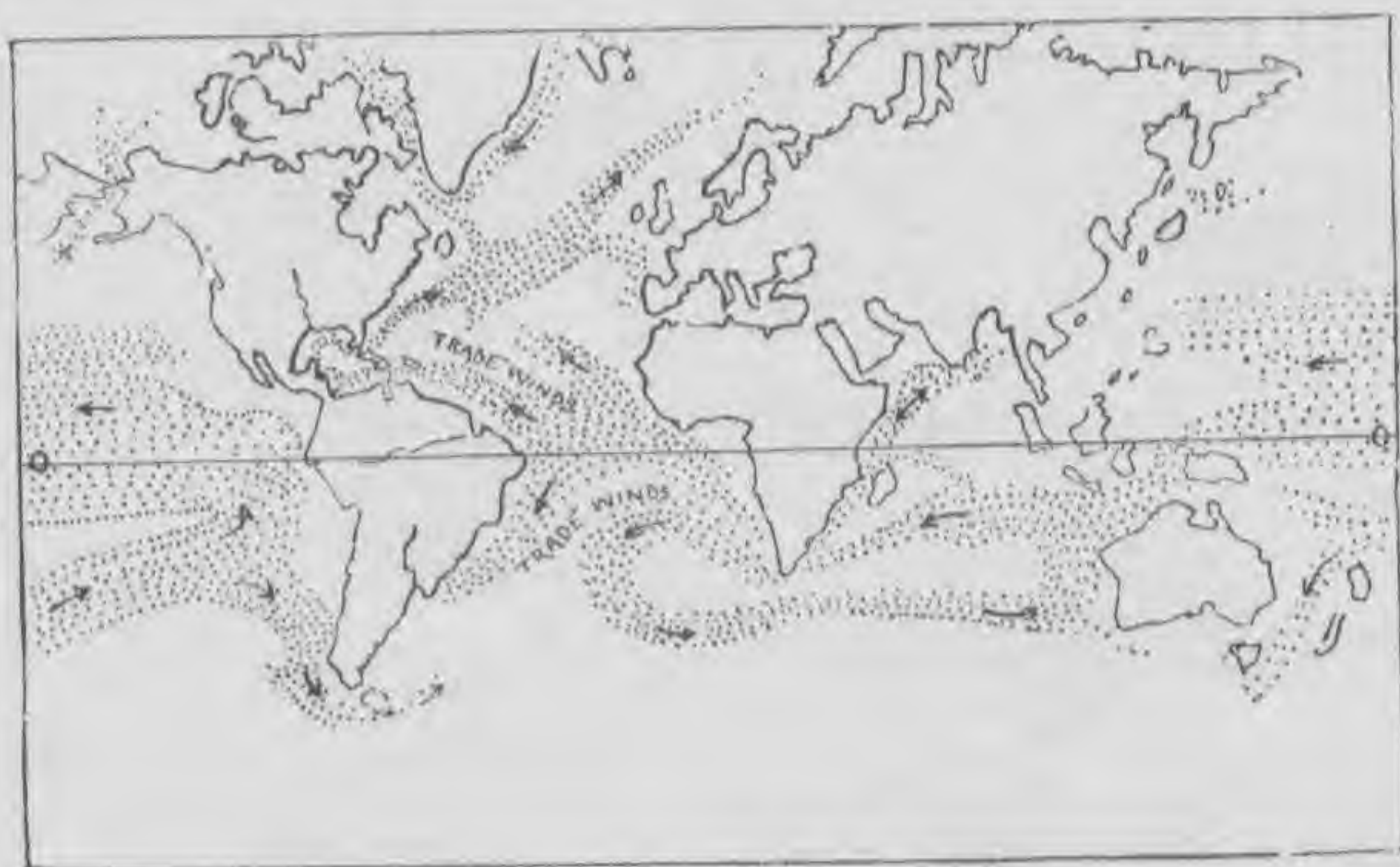
The Pacific has a very similar arrangement of currents. The trade-wind drives westward the waters from the western coast of South America, pouring a branch down between New Guinea and Borneo, while a larger branch bends northward along the coast of Siberia, swings across to the coast of Alaska, and then on down to California, where it is gradually swerved westward on its old equatorial track. This is a warm river like the Gulf Stream, and is usually called the great Japan current. But down through Behring's Strait, which is too shallow to admit a large one, comes a small cold stream, which answers to the Arctic current of the other side.

sixty degrees near the surface; but as you sail on, this gets higher, until, opposite Sandy Hook, you may get as high a reading on the thermometer as 80 degrees, and opposite Florida above one hundred degrees. This difference in temperature between the eastern and western margins of the Gulf Stream is owing to the presence of the great river of arctic water flowing in an opposite direction between the Gulf Stream and the shore. Off Florida the Gulf Stream is about sixty miles wide; off New York it is over one hundred miles in width, but is less sharply defined. Its depth is hard to determine, but it certainly amounts to several hundred feet. It is worth remembering that, although some guesses had been made at it before, Dr. Benjamin Franklin was the

first man really to study the Gulf Stream and tell us anything of its origin and course.

These ocean currents have a great influence upon the climate of both the land and the seas, and affect the inhabitants of both in various ways. The study of this influence brings out some entertaining facts. For example, the North Atlantic is the stormiest of all oceans, because the Gulf Stream heats portions of the atmosphere and thus sets winds a-blowing.

Scotland lies as far north as Labrador, and the latitude of London is above that of Lake Superior. Yet they have none of the terrible frosts and heavy snows which prevail in Canada and make Labrador a land of ice almost uninhabitable. This difference is due almost entirely to the fact that the Gulf Stream pours its warm flood against the coast of Great Britain, and even tempers the Norwegian coast, so that forests grow and the Laps can live in much comfort on a line with the endless glaciers and frozen seas of Greenland. But instead of having all the sea-breezes warmed by flowing over water that brings with it the heat of its long wanderings under the fierce equator, the unfortunate coasts of Greenland are bathed



OCEAN CURRENTS AND TRADE-WINDS.

in water chilled by months of captivity near the pole, and loaded with ice which cools down all the winds that blow ashore till they freeze everything they touch for half the year, and make it foggy or chilly the rest of the time. Hence Boston is a city of frost and snow all winter, when it is really no further north than sunny, flower-growing Italy, where one laughs at winter.

Similarly, in the Pacific Ocean, the northward movement of the great Japanese current makes the coast of China habitable and pleasant clear to the sea of Okotzk, and gives the Aleutian Archipelago a pretty decent climate; but by the time the current has had a touch of Behring's Strait and swept down the shores of British America, it has got well rid of its warmth, and gives to the Pacific coast of the United States that constant succession of chill winds and fogs and the heavy rains or snows which mar the climate of California. The weather in the interior of continents is pretty much alike on similar latitudes

the world round, varying with height; but the climate of all sea-coasts is good or bad as a place to live, in accordance with the temperature of the water which the currents bring to that part of the ocean.

But the currents of the ocean influence something besides the weather. Upon them depends to a considerable extent whether a certain part of the coast shall have one or another kind of animals dwelling in the salt water. This is not so much true of fishes as it is of the mollusks or "shell-fish," the worms that live in the mud of the tide-flats, the anemones, sea-urchins, starfish and little clinging people of the wet rocks, and the jelly-fishes, great and small, that swim about in the open sea.

Nothing would injure most of these "small fry" more than a change in the water making it a few degrees colder or warmer than they were accustomed to. Since the constant circulation of the currents keeps the ocean water in all its parts almost precisely of the same density, and food seems about as likely to abound in one district as another, naturalists have concluded that it is temperature which decides the extent of coast or of sea-area where any one kind of invertebrate animal will be found; for beyond, the too great heat, or else the chill of the water, sets a wall as impassable as if of rock. It thus happens that the small life of hot Cuban waters is different from that of our Carolina coast; and that, again, largely separate from what you will see off New York; while Cape Cod seems to run out as a partition between the shore-life south of it, and a very different set of shells, sand-worms, and so forth, to the northward. This is not strictly defined; many species lap over, and a few are to be found the whole length of our coast; yet Cape Hatteras ends the northern range of many half-tropical species, and Cape Cod will not let pass it dozens of kinds of animals abundant from Massachusetts Bay northward.

But out in the ocean, the warm current of the Gulf Stream forms a genial pathway along which southern swimming animals—like the wondrously beautiful Portuguese man-o'-war—may wander northward for hundreds of miles beyond where they are found near shore; but if by chance they stray outside the limits of the warm Gulf Stream they will at once be chilled to death. Similarly the arctic currents let arctic animals, used to half-freezing water, make their way as far south as Massachusetts Bay.

There is another thing of interest about ocean currents. They not only allow swimming animals to go beyond their ordinary range by supplying them with water of the right temperature, but they carry floating burdens where they are greatly needed. They bring the icebergs—though perhaps there are not among the things needed, since they help to form those terrible fogs of Alaska and Newfoundland; and they often bear the great logs which come floating down the Amazon or our own rivers clear across to the shores of Europe. Before the western half of the world had been discovered to Southern Europe by Colum-

bus, these water-soaked, weed-grown, barnacle-flecked trunks of unknown trees used to puzzle men over there greatly; and the conviction gradually forced itself upon their minds that there must be an unseen country far away to the west where these trees grew. Thus the Atlantic currents bore messages from the mysterious new world which finally were heeded by brave explorers. They gave a hint of the way to America just as the buffalo-trails first taught the engineers the best routes of our Pacific railways across the Rocky Mountains.

The currents do another service to the world. Where they strike islands not far from some continent or some other islands, they often carry along old logs with plants growing upon them and quantities of seeds which are not injured by their short voyages. When, therefore, the coral polyps build up one of their reef-islands until it appears above the

waves, thither the currents bring roots and seeds from neighboring islands, and quickly plant them upon the new barren shores, so that in a few seasons the little islet becomes green and wooded and ready to hold its own against the winds and waves.

Moreover, the same drifting stuff will carry many sorts of land animals — insects, snails of many kinds, reptiles, and even four-footed beasts, and so not only give the island a vegetation, but populate it with many of its smaller animals. This seems to you, perhaps, a very accidental and haphazard way of fitting out an island so that presently it may support human beings, nor is it the only means by which barren islands become productive; but it is important as far as it goes; and when we study into the distribution of plants and animals in an archipelago, we are pretty sure to find those of the same sort upon islands that lie in the same current.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

III.

ST. AMBROSE AND THE MUSIC OF THE EARLY CHURCH.

IT was Easter Sunday in Milan, April 25th, 387. The gardens were bursting into bloom; the songs of nightingales were still heard in the fragrant air of the early dawn.

Lights shone in the cathedral, while the rosy hues of the early morning were flushing the sky. At sunrise, throngs of people hurried through the street to celebrate the festival of the Resurrection.

There was to be a baptism in the church that day, and among the catechumens, as the candidates for the joyful rite were called, was a convert from heathenism, false philosophy and infidelity. He had been a dissipated youth, and his mother, whose name was Monica, had prayed for his conversion for many years.

The church was famous for its music—it was known as the Singing Church of Milan. Its bishop was St. Ambrose, now venerable. He was a gifted musician, as well as an eloquent and persuasive preacher, and he is said to have composed an anthem for this Easter baptism that expressed his own gratitude and the convert's joy. If the old tradition be true, he and the new convert were to sing it together.

Thus begins the glorious chant:

*“Te Deum laudamus,
Te Dominum confitemur!”*

Te æternum Patrem omnis terra veneratur!

*Tibi omnes angeli,
Tibi cæli et universæ potestates,
Tibi Cherubim et Seraphim,
Incessabili voce proclamant,*

Sanctus!

Sanctus!

Sanctus!

Dominus Deus Sabaoth!

Pleni sunt cæli et terra majestatis gloriæ tuæ!”

A jubilant strain follows this noble opening, thus rendered in English:

“The glorious company of the apostles praise Thee,
The goodly fellowship of the prophets praise Thee,
The noble army of martyrs praise Thee,
The holy Church throughout the world doth acknowledge Thee,
The Father, of an infinite majesty,
Thine adorable, true and only Son,
And the Holy Ghost, the Comforter.”

The great anthem from which these extracts are made is called the Ambrosian Chant, or the *Te Deum*. In old English prayer-books, it is attributed to St. Ambrose and St. Augustine. Its origin and development are, however, somewhat involved in doubt. Still, St. Ambrose, the Bishop of the Singing Church, was, doubtless, the author of a portion of it, as it now appears.

The early Church doubtless used the Hebrew chants of the temple service in their worship. The Romans derived their music from the Greek, which, as we have shown, consisted of intoned poetry with

the accompaniment of the lyre. St. Ambrose united the two methods, and gave the Church the beauties of both. To him is attributed the arrangement of antiphonal or responsive psalms for the Christian Church.

"You unduly influence people's minds by singing," said one to him.

"A grand thing is this singing," answered the bishop, "and nothing can stand before it. What can be more telling than that confession of the Trinity which a whole population utters, day by day!"

tones sung in unison. Until some five hundred years ago, no compositions of four parts had appeared. Counterpoint did not exist, and it was not until about the year 678 that musical instruments began to be commonly used in churches, at which time Pope Vitalian admitted the organ. Music was learned principally by hearing.

Greek music consisted of scales of only four sounds. The scale was called the tetrachord. The sounds were repeated from tetrachord to tetrachord, as we repeat ours from octave to octave.

About the year 1000 an Italian monk named Guido



CHANTING THE EASTER HYMN.

St. Augustine says of the music of the church of Milan:

"How did I weep, O Lord, on hearing thy hymns and canticles, touched to the quick by the voices of thy well-attuned Church! The voices sank into my ears, and the truths distilled into my heart."

The chants thus established by St. Ambrose continued in use until the time of Pope Gregory the Great. He improved them, introduced four new tones, and wrote a solemn musical composition which is now known as the Gregorian Chant. It is still sung by the Catholic Church, and is used by the English and Eastern Church during Lent. Several hymn tunes found in all the best collections of music, among them "*Olmütz*" and "*Hamburg*," are evolved from it. In Europe, the organist gives it a peculiar stateliness and grandeur by playing a tone or half tone in advance of the singing.

These early chants were founded on music as old as King David. They were modulations of sweet

was listening to the performance of a hymn to St. John. We give the hymn and the music:

HYMN TO ST. JOHN.

UT queant lax - is, RE-sonare fibris, MI - ra

ges-to - rum, FA-mu - li tu - orum, SOL - ve pol-lu - ti

LA - bii re - a - tum, Sanc - te Jo - han - nes.

The recitation of the words of this hymn, and the frequent returns of *ut, re, mi, fa, sol, la*, made an impression upon his mind and haunted him. They suggested to him the converting of tetrachords into

hexachords, or four sounds into six. It was a wonderful invention, and the fame of it flew over Europe. Guido was invited to Rome by the Pope, and he there taught the Holy Father to sing a *tune*. Guido was the inventor of what is now known as the *scale*. The French afterwards added the syllable *si* to the notation. Sacred music was still further improved by Palestrina.

If music in the early Church was not the glorious art it is now, if the organ was once a few reeds, and the piano a light harp, the sacred poetry and hymns of the early Church are hardly equalled by those of the present time. Nothing more noble than the *Te Deum* has ever been written by the uninspired pen.

Take, for example, the following hymn of St. Anatolius (458). Note its dignity, its strength, its perfect literary work, its lofty devotion! It is a production worthy of the Church and her mission:

PEACE.

I.

Fierce was the wild billow,
Dark was the night;
Oars labored heavily,
Foam glimmered white:
Mariners trembled,
Peril was nigh,
Then saith the God of Gods,
"Peace — it is I!"

II.

Ridge of the mountain wave,
Lower thy crest!
Wail of Euroclydon,
Be thou at rest!
Peril can none be,
Sorrow must fly,
When saith the Light of Lights,
"Peace — it is I!"

III.

Jesus, deliverer!
Come thou to me!
Soothe thou my voyaging
Over life's sea!
Thou, when the storm of Death
Roars, sweeping by,
Whisper, O Truth of Truth,
"Peace — it is I!"

In the Ambrosian Chant, the Gregorian Chant, the invention of the scale, and the work of Palestrina, one may see sacred music slowly tending towards the grand oratorio. At the same time the organ was being improved and new musical instruments were invented. In our next chapter we shall speak of the great tone master who brought all of these new arts and improvements to perfection in the noblest compositions for many instruments — George Frederic Handel.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

III.

THE CITY STREETS; AND THE DEPOT.

"The germ of our political institutions, the primary cell from which they were evolved, was in the New England town, and the vital force, the informing soul of the town, was the Town Meeting, which, for all local concerns, was king, lords and commons in all."—GARFIELD: *Chips from the White-House*, p. 458.

THE travelling law-school is now walking through Boston Common and along the city streets, on its way to the railroad depot. One pleasure in teaching American Little Citizens is that they know so many things at the start. All girls and boys know well enough what a city is, and that a city has laws of its own. Therefore the teacher will simply ask that one or two of the boys will keep watch for any city law which the party may pass; and meantime he will relate the story of the two dancing bears in Madison. The man who owned these bears brought them to the city of Madi-

son to exhibit them. But he had learned that in any city there are laws about exhibitions, and that he must get leave before he could open a show. Therefore he went to the mayor's office and asked for a "permit." Every city has a mayor, some man whom the people choose to administer the city laws. His office is the place for obtaining permission to do anything extraordinary in a city; except that in very large cities there are several officers instead of only one. At the mayor's office the clerks gave the showman a permit. He then led his bears upon the sidewalk of the chief street, and told them to dance. They began, and a crowd gathered to see. Just then a man in a buggy, driving a spirited, skittish horse, came around the corner. When the horse saw the bears he was frightened; he ran away, the buggy was upset, and the driver was thrown out and badly hurt. The driver brought a lawsuit against the city, to be paid for being hurt. And the judges said that if the city officers had been so foolish as to tell the show-

man he might let his bears dance on the sidewalk of that crowded street, the city ought to pay damages; bears ought to be exhibited in a hired hall, or in a tent on some vacant lot. Thus we see that there must be rules in a city very different from those in the country. In the wild woods bears may roam where they please. And if a farmer should catch one and get a chain around him he might lead him across the fields to his house without harm being done. But in a city there is need of laws and officers to say exactly where and how bears—or other dangerous things, such as steam-engines, or gunpowder—may be carried or used.

"Please, sir, there is a city law."

"Where? Yes; that is one."

KEEP OFF THE GRASS.

It would be absurd for a legislature at a State-house to pass a law ordering the people to keep off the grass everywhere in the State. In country places walking in the fields may be perfectly proper. In a city park the grass must be protected; therefore the city officers are allowed to decide what the rule about walking on the grass in that city shall be. Just so it is their duty to decide where there shall be streets, and whether they shall be paved; to provide fire-engines and employ firemen for extinguishing fires; to make arrangements for bringing in water by an aqueduct; and for lighting the streets with gas or electric light; and for like things which are important to all the people of the city, but do not concern the rest of the State. They also employ policemen to set any one right who has lost his way, assist any one who is hurt, and prevent any one from doing mischief. All judicious and well-educated persons who visit a city are careful to obey all the city laws, and to comply with any directions which the policemen give them.

A few years ago on this very Boston Common, the city officers made a coasting place in the winter for the boys of the city. They set apart a path which ran down hill for the coasting, and poured water over it to freeze and make the path slippery, and then stationed a police officer at the lower end to say to any one walking that way, "This is not a path for walking: it is the boys' coasting place." Notwithstanding these things a grown man persisted in walking on that path. The sled of a boy who was sliding down the hill ran against him, and he was knocked down and badly hurt. He brought a law-suit against the city to require the city to pay his doctor's bill. But the court said that the city had a perfect right to make a coasting place for the boys; and grown persons had no right to walk upon it.

Besides cities there are counties. These have charge of matters which are important in country places where perhaps there may not be many people living. For example, the paved streets in a city are usually made and kept in order by the city officers;

but the country roads which spread everywhere, running from one city or town to another, also the bridges across streams, are usually made by the county authorities. The sign often posted over a bridge, "Five dollars' fine for driving across this bridge faster than a walk," is an example of a county law. And counties have most to do with catching criminals; for these might easily escape from the cities, and the policemen could not be spared to search the woods and fields for them.

Besides cities and counties there are towns and villages. It is, however, very difficult to explain about these, because the words about them are not used alike in all parts of the land. Ask some grown person to explain a good map of a State. It ought to be a pretty large-sized map. On such a map you will often find large irregular patches printed in different colors or with borders of different colors: these are the counties. Every county is divided by fine lines into little squares: these are towns or townships. They are usually pretty square, but not perfectly; in the Western States they are much more regular and even than in the Eastern. Also here and there little spots are marked, some large and black, others smaller; some of these are called towns, others are cities or villages. You will see that the largest of these are in places convenient for ships and railroads. You will see also that the counties fill the entire State. So do the townships. But the cities and villages do not fill the State: they are seen only here and there where a great many persons wish to live together. Usually, as soon as people begin to live in a State in numbers, the whole State is divided into counties, and again into townships, so that every place can have some laws as fast as needed. In these townships or towns all the inhabitants, so long as there are not too many, meet in a public meeting now and then, and make what laws they please. They can make laws for their own town only. Their assembly is called the town meeting. When, however, so many persons reside in a place that the town meeting becomes too large, the legislature sitting in the State-house will pass a law declaring that place a city. In a city there are no town meetings; the inhabitants elect a mayor and some aldermen to attend to the public business for them. A city hall is built, which corresponds to a State-house. The mayor and aldermen meet here and decide questions or pass laws for the city. The meeting which makes laws for a city is often called the common council.

The ancient cities of Europe began somewhat differently. The land was divided into small territories—kingdoms they were often called. Each kingdom was ruled by a king (or possibly a queen). He was usually a military chieftain. Either he or one of his ancestors had conquered the kingdom and divided the land among his soldiers; and as the original soldiers died their sons inherited the lands. Each king was accustomed to require the inhabitants, in return for

his protecting them in their lands, to give part of their crops for the support of the king and his court and army officers; whenever he became engaged in war and needed soldiers, they were obliged to serve; also he would require the common people to pay tribute. Merchants and manufacturers disliked to be called away from their business to serve the king, or to have their profits consumed in tributes; hence they would often gather in a convenient spot, build a wall around it keep out invaders, and declare themselves to be a city, and claim liberty to make their own laws. How far they could prove themselves to

be free from the exactions of the kings and chieftains differed in different cities. But on the whole, a great deal of modern liberty was attained in this way, by the wiser, thriftier and more resolute people in the land combining in cities to resist the military tyranny of the soldiers, and to establish just laws.

But by this time we have reached the railroad depot. Now we shall begin a ride. We shall be in charge of the railroad corporation. The railroad companies make certain laws—regulations, they are usually called, and travellers need to understand and obey them.

HEALTH AND STRENGTH PAPERS.

III. — MY LITTLE PATIENT.

BY MARY J. SAFFORD, M. D.

I AM going to tell the young school-girls of the Reading Union about the little patient who came to me yesterday. What a wretched little huddle she looked as I came down to her! She is only thirteen, but the tired-out-ness of forty-five was on her pale face. Her lungs were lost—folded up somewhere between her rounded, bowed shoulders, as she drooped in her chair.

"Sit up! sit up—up—up!" I said, my own lungs aching sympathetically at sight of her.

"I—can't!" she answered me, and with such a hopeless respiration.

I doubt if she will, or can yet, of her own accord. I drew her shoulders back, but they fell forward again, in a moment, as I took my seat.

My pale patient goes to school from nine A. M. to two P. M.

The school is about four blocks from her house. I learned from her that she almost always rides to school on the horse cars that pass by her door.

This pale girl is very ambitious to rank high in her studies. Very often when the half-hour recess is given she is seen crouched in a remote corner puzzling over some unconquered problem, so that she does not even get a change of position nor a breath of fresh air. Sometimes she is too hurried and anxious to eat her lunch. Since my talk with her teacher, however, I do not regard this as a serious loss.

When my pale young friend gets home from school, does she do as does her brother two years her senior? He takes bat and ball, and makes a bee-line for the nearest play-ground; and there, with a rollicking set of playmates, throws his whole soul and body into fun-making for two or more hours.

No, she doesn't do that. A piano lesson is to be

practised, or there is a fascinating piece of Kensington stitch to be finished in time for a present for some festal occasion. She gets no change of position; her head still droops, her shoulders still bow forward, her spine still curves.

And thus the twelve hours of precious sunshine have faded into evening, and the pale girl has had it all under glass. Now night closes in upon her, the lamp is lighted, and the brother and sister draw about it and begin the task of study for the coming day.

His mind is fresh. His body tingles with ruddy health from head to foot. An hour of good study suffices for him. He is ready for bed. Probably "study hours out of school" will work him no serious harm.

But his pale sister! She was so weary and nervous when she began to study, that nothing seems clear to her; and after spending two hours, bowed over her books in a endeavor to commit her lessons to memory, discouraged, and it may be tearful, she is persuaded to go to bed. But it is not to sleep a quiet, restful sleep. Her lessons haunt her dreams, she awakens in the morning, unrefreshed, to begin the routine of another high-pressure day.

What did I do for her?

I did not put up any medicines for her to carry home. I showed her how to sit correctly and healthfully, how to stand healthfully, and how to walk healthfully. But before the lesson was over, I saw that I must send for the mother and instruct *her*. Upon *her* must fall, for a while, the responsibility of insisting that her neglected child sits, stands and walks healthfully. She should have begun this supervision long ago when her daughter was but ten years old.

What I should have said to my little patient had she not been too listless to heed it, and what I did say to her mother instead, I will tell you in my next paper.

WHAT TO DO ABOUT IT.

PIP. "How can I keep fleas off a little fleecy dog?" Do not use carbolic soap on young or tender dogs: it burns their skin. I knew a beautiful little spaniel nearly killed by it. Rub dry sulphur into the hair, or wet it with camphor, and wash in warm water with fifteen drops carbolic acid to the quart, twice a week; wipe dry and comb. Three or four applications will drive the insects away, and they can be kept away by giving the dog pine shavings for bedding. You should comb all large dogs with a curry-comb once a week. Dog-fanciers use a common horn comb and stiff brush for their terriers and spaniels.

LEWIS K. A. "How long will dwelling houses last when well built?" Stout oak-framed houses over two hundred years old are in good condition to-day in this country. Houses exist in German cities known to be over thirteen hundred years old, and a house with thatched roof, built one thousand years ago, lately fell in ruins in Derbyshire, England. The common frame house of this country is built to last from thirty to fifty years at most.

LAURA. "How shall I keep knitting-yarn from staining my hands in working?" Always before knitting throw the skein of yarn into a basin of cold water with a tablespoonful of alum dissolved in it. Let the yarn stand ten minutes to shrink it and set the color, then shake the water out without wringing, and hang in the sun and wind to dry.

KATE AND WILLIE of Milwaukee want suggestions for a juvenile party from seven to ten o'clock p. m. A magic lantern, conjuring tricks by a clever papa or uncle, Punch and Judy, home-made, are favorite entertainments. In cities a professional conjurer is often engaged to show his tricks at private parties, at terms about ten dollars an hour, or evening, if it is preferred that he should exhibit at intervals between other games. It is great fun to have an older friend come in disguise of a tramp or gypsy woman during the evening, to beg or tell fortunes.

FRANCE JORDAN can best improve her memory by writing down what she wishes to remember, whether a message or passage to learn, reading it slowly aloud three or more times, or writing it three times over, *then* destroying the paper, and depending on her mind. A few months of such practice will improve the memory wonderfully. To remember a poem, study and repeat, stanza after stanza, morning, noon and night, going over what you have learned from the first each time.

WALTER AND JULIUS. There is great confusion in boys' notions of honor. You should not go to the teacher with tales of your schoolmates, but *when questioned* by those who are in authority over you,

parents, guardians or teachers, it is your duty to tell who did a mischief or broke a rule, no matter what the result to yourself, or how unpopular you become. Boys have a false honor which hides mean and skulking actions in each other, which ought to be ridiculed out of them. The most cowardly injuries and injustice among boys go unchecked, and the weaker are abused and bullied in a way every decent boy should resent, because this false notion of comradeship leads them to lie, prevaricate or keep silence to screen the guilty. Teachers and friends ought to put down this ignorant, petty "sense of honor" for something more intelligent and upright. When you know of a wrong, and keep silence about it *when asked*, you become a partner in wrong, and responsible for its original meanness. It is a pity that boys and grown people did not carry the same strictness of principle they show in screening bullies and frauds into points of genuine honor and courage.

TEDDIE has been chosen to give the teacher of his class a fine writing-desk as a birthday gift from her pupils, and wishes I would write him a presentation speech. Dear Teddie, the bore of receiving presents is that people, large and small, insist on making occasions and speeches about them. The speech takes away the pleasure of the time for the persons most concerned—the unlucky wight who has to make it and wonders how he shall get through it, and the person complimented, who has to say something charming to the surprise, without six weeks to prepare for it as the first speaker has. The best model of the sort I ever knew was this from a boy who was chosen to present a teacher with a gold watch from her school: "Dear Miss Raeburn: The scholars you have helped and worked over, want you to carry this watch to remember them as they will long and gratefully remember you." Then the teacher made the same response which M. Outry, the French Minister, made to the attentions of the Brown University students at Providence, complimenting the visiting French officers. No, hers was longer by three words. She said with a happy smile and rather a glistening eye, "Dear boys and girls—thanks!"

LIONEL asks if a permit is needed to visit the room of either branch of the General Assembly, and if so how he can get one. As the General Assembly is the governing body of a free and republican State, no permit is needed to visit the galleries of either house. Please remark that one of the distinctions between a republic and a monarchical country is that the people of the former have a right to visit its national and state capitals to see how public business is carried on.

THE WISE BLACKBIRD.

C. Y. F. R. U. SUPPLEMENT.

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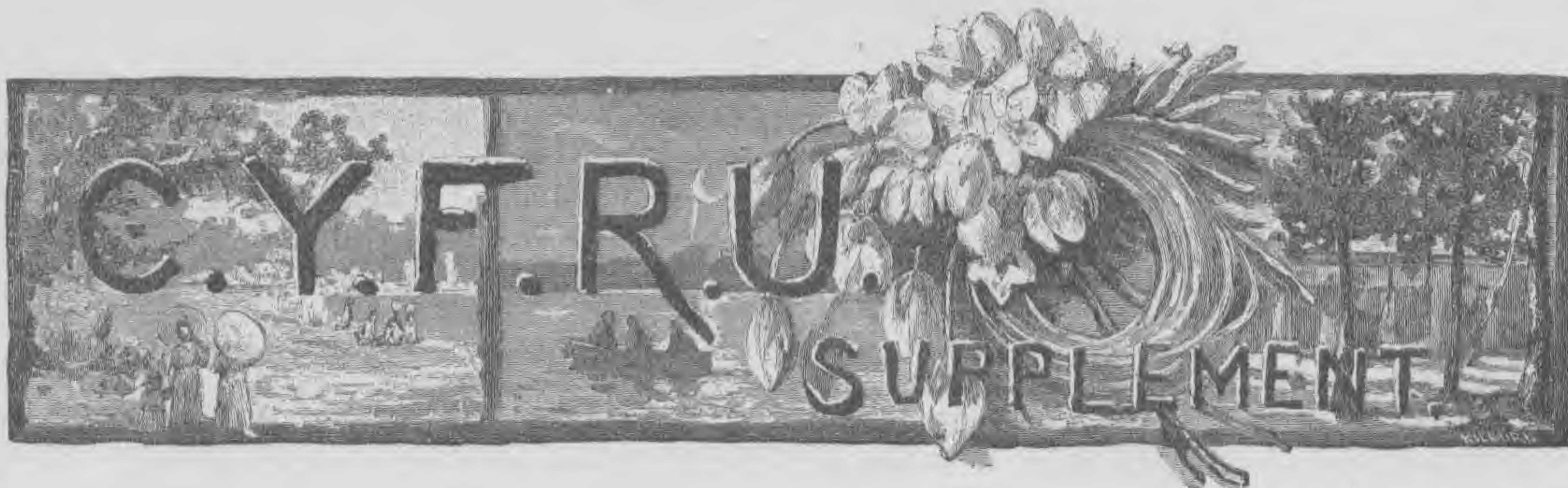
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WIDE AWAKE



BOSTON:
D. LOTHROP & COMPANY, PUBLISHERS,
FRANKLIN ST., CORNER OF HAWLEY.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

IV. — A SUCCESSFUL SECESSION.

BY MARY BLAKE.

IT was in the year 492 B. C.

A group of three people, talking in very earnest, excited tones, were standing, just at twilight, in the doorway of a plain cottage in Rome.

"It is of no use," the woman was saying sadly. She was a noble-looking woman, though bearing in her face and form the marks of care and toil. The two men, stalwart, fine-looking fellows of thirty and twenty-five, were evidently her sons, and they all were gazing down the road as if expecting some one.

"Caius will have no mercy," continued she. "I know these proud nobles too well."

"Mercy!" broke in the oldest son vehemently, "I don't ask for mercy, I want simple justice. Debt! Caius the Patrician to talk of 'debt' to my father! How did he lose his health but in the accursed wars the pride and folly of these nobles brought upon us? Didn't he lose his crops because the Volscians and Æquians burned them to avenge the wrongs they had suffered from the nobles?"

"Yes," said the mother eagerly, "he never would have borrowed the money from Caius but to keep you little children from want, because he was not allowed time and strength to earn food for you himself. He has given up everything but his life in the public service. Money could not repay what he has done for Caius, and now he persecutes us for the debt. Oh that it should come to this! How many nights in the war times, when you were little children, my sons, did I look off to the hills and see the cottages and grainstacks burning, and wonder when our turn would come; how often did I hear the cry, 'The Volscians are coming!' and clasp my boy-babies in my arms, and long, oh, so earnestly, for the strong arms of my brave husband to defend us! But no, he was away fighting battles for the patricians, perhaps, too, at that very moment lying faint and

wounded! Then I consoled myself, poor fool that I was, by thinking how they would delight to honor him when he came back. I said to myself, 'I am a Roman matron, and these are sons of a Roman soldier. They will have a heritage of glory more than enough to make up for all this suffering. The Republic will be grateful'—"

"Grateful!" exclaimed the younger son. "Rome does not know the meaning of the word, else why should she make such cruel laws?"

"But thirty days ago," said the mother, "when Caius said he must have the debt paid, and your father took the choice the law allows between hopeless slavery for himself and you—think of that, my grown-up sons!—or answering with his body for the debt, I never really thought that Caius would press him to the limit of the law. Thirty days has your father tried to get the money, but it has been useless—I knew it would be. Now nothing remains, if Caius is still merciless, but for your father to be chained like a dog with heavy irons in Caius' court-yard for Caius' worthless sons to make sport of—oh, my boys, the very thought makes me wild! Think of the sixty days' misery and shame that must follow, during all which time they will feed him like a beast with just food enough to keep him alive to feel his degradation, and then—hopeless slavery or a cruel death! Are you men, my sons, to see your old father, bent with age and crippled with wounds—"

"Mother," interrupted Marcus, speaking slowly and heavily as men do when their passions are too fierce and deep for words, "this shall *never* be. We have borne a great deal already, but this is too much. There he comes—let us meet him." And they walked down the road where a tall and soldierly old man was seen slowly approaching.

"Well, Valerius," said Virgilia, the mother, "is it all over?"

"Yes," said he; "Caius' only answer to my entreaties was, 'You had your choice; the law must take its course.' And his miserable son mocked and

jeered at me—the profligate! But it is the last time!” And the old man’s eyes flashed ominously. “There is only one thing left,” he continued slowly: “we must leave Rome. There is surely free air enough somewhere for a Roman soldier to breathe. The other plebeians will go with us, and we will found a city that some day may bring these proud patricians to their senses. Virgilia,” turning to his wife, and his tones softening a little, “could you bear to give up this home, poor as it is, where we have lived all these years, where our children were born, where our little Julia drooped and died?”

“Yes, my husband,” answered Virgilia, though her eyes filled with tears. “Anything that will give you a fair chance.”

“What have we to lose?” vehemently interrupted Marcus. “Haven’t we all been tied down to hard work and poor living, going without everything we wanted, and doing everything we didn’t want to do, all these years; and what have we gained but to sink deeper into debt year by year? What better chance is there for *me* and *my* children?”

Valerius and his family belonged to that great class of common people who in all countries and in all times have been worth so much to the rich and noble, but yet have suffered so much from their hands. Cruel debtor laws for fifteen years had borne very heavily on the plebeians, as the common people were called in Rome. There had been open protests and low mutterings; but plebeians everywhere bear very much before they rebel against those they are accustomed to serve. Yet now the thought of seeing the brave old soldier, whom they all knew and respected, chained like a beast, was too much for even their long suffering. They knew too well all he had done for Caius the Patrician, they knew quite as well that this money which Caius would extort was only to go to buy Caius’ profligate sons more white horses and gilded chariots. The plan of leaving the nobles to fight their own battles had been often talked of as a last resort. Mount Aventinus was not far away. It would not take long, in the sunny Italian climate, to make comfortable homes there for their families. In case of need it might be fortified—who knows?—against even Rome herself.

There was little sleep that night in the humble homes of the plebeians. Men came and went, talking in low tones; women were busy gathering together their most precious possessions. If the tears fell as they worked, they fell quietly; for though women dread to give up their old homes for new and untried ones, they stop at no sacrifice when the peace and safety of fathers and husbands and sons is threatened.

Grey dawn came. In the plebeian quarter all were strangely astir. It was not a noisy procession that marched through the gates, but there was a set look on the passing faces which showed that it might be dangerous to meddle with them. At any rate, nobody did, and by nightfall they were comfortably camping

about the sides and top of Mount Aventinus. The nobles could not believe that these poor plebeians could be in earnest. They sent a messenger to ask them to come back.

But the plebeians answered, “No, thank you, we do not intend to come back, we like it better here.”

The patricians were really disturbed. It would be very inconvenient to get along without the plebeians.

One bright morning not many days after the secession of the plebeians, Marcus’ little daughter Lucretia stood beside her mother looking towards the city. Rome has now, even to the chance visitor, an irresistible and mysterious fascination. He dislikes to leave it, and he longs to return to it; and these people could not resist longing looks, even if they were self-exiled.

“Mamma,” said little Lucretia, “I don’t like it here. Papa and grandpapa are so busy and sober, and you look so homesick. Can’t we go back to our little cottage again? I want to see my rabbits, and your flowers were so lovely. Don’t you want to go back, mamma?”

The tears sprang into her mother’s eyes. “Yes, my child; but they were so hard and cruel to us there; and here—but who is coming?”

A company of men, evidently patricians, were approaching. Valerius and Marcus had seen them too, and had gone forward to learn their errand.

“Oh plebeians,” called out the leader, “listen to our message.”

Valerius gravely replied, “We will listen, but we will not heed, unless it brings good to us as well as to you.”

“It is Menenius Agrippa,” whispered Marcus to his father.

“I know him,” answered Valerius; “a leader and a spokesman for the nobles, a smooth-tongued man. Speak on,” continued he, turning to Agrippa.

And Menenius began telling the plebeians in persuasive tones how much they owed to the patricians, how they governed the city and directed the wars; how they never could have overcome Rome’s numerous and dangerous enemies but for the skill of the patrician leaders, picturing the future glory of Rome, in which the plebeians would share as well as the nobles if they would but come back to the city and share in her dangers.

Valerius answered boldly:

“Much good will Rome’s glory do us if we must be slaves to Rome itself. Remember, Agrippa, who has fought the battles. Look at me, see my forty-five wounds, all in front, and not one in the back—yet here I am without the means of living, or a single acre of the land that has been bought with my blood; nay, more, I cannot even call this poor wounded body my own. No, Menenius, no! we will never go back to our old wrongs! We will have a city of our own. If we have built your houses in Rome, we can build our own here, yea, and defend them too if need be.”

At this the plebeians shouted: "We will not go back; leave us in peace, O patricians!"

But the nobles had no idea of doing this. They were more convinced than ever that it would be neither pleasant nor safe to have a disaffected city growing up at their very gates.

"Listen!" shouted Agrippa again, as the voices of the plebeians grew louder and more excited. "You promised to listen. Hear this parable."

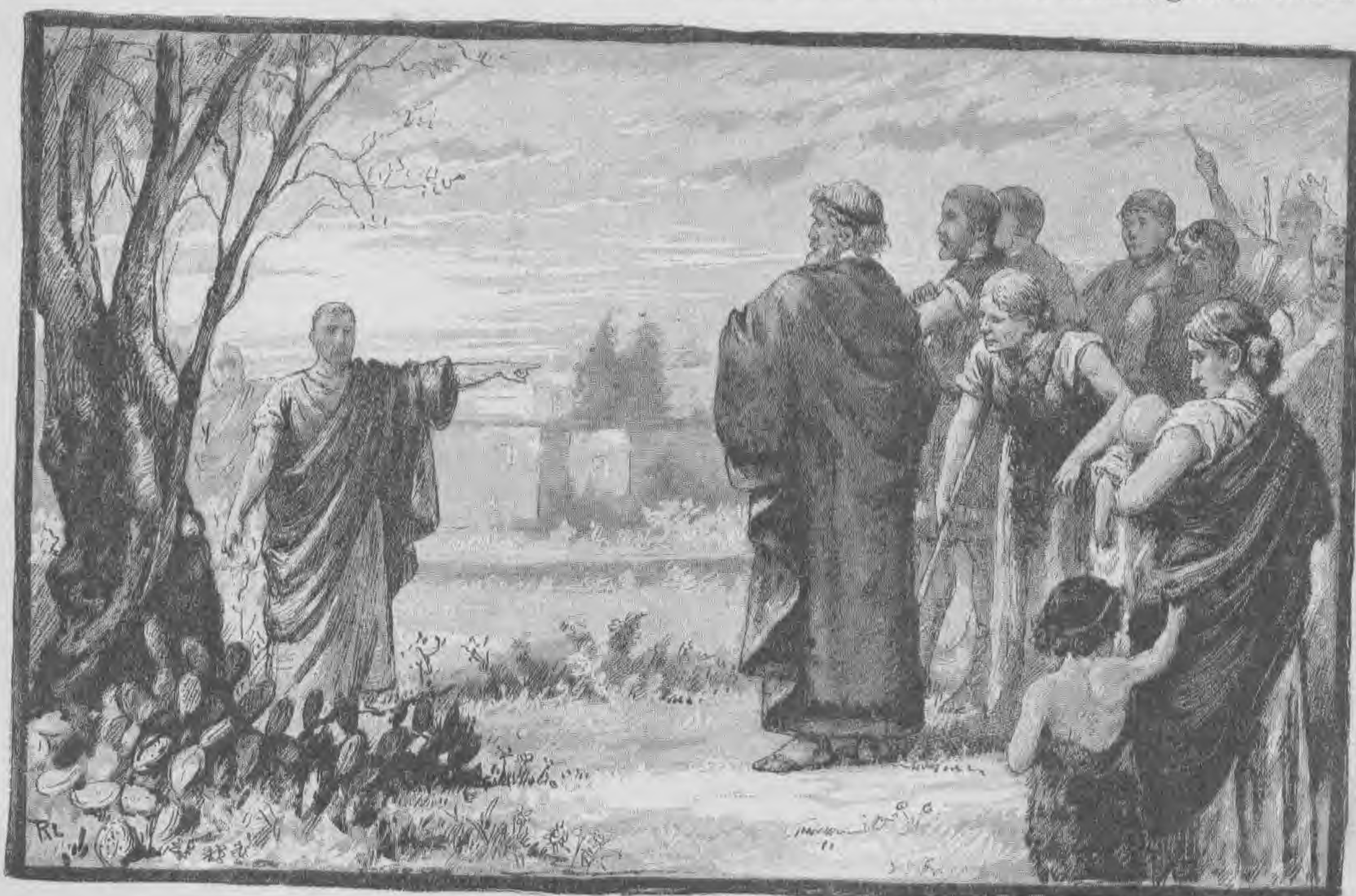
"Hear his parable," commanded Valerius. The plebeians stood once more silently listening.

"Once upon a time," began Menenius Agrippa, "the head and eyes and hands and feet rebelled against the stomach. 'We have waited on you long enough,' they said; 'what are you good for but to be

ing that, they had destroyed themselves. Know, O plebeians," continued Agrippa, "that as the stomach is to the body, so are the nobles to the state. You injure them and you destroy yourselves. Come back to us; Rome needs you, and you need us. If you will tell us what you want, we will try and do it for you. If our laws are too hard, we will make them easier."

The plebeians were evidently impressed with this speech. They gathered about Valerius and his sons for consultation. Soon Valerius answered, speaking for them all:

"We will come back on these conditions, and these only: Cancel all our outstanding debts; set free those debtors who are now in the power of their creditors; then, as a surety for the future, give us two men from



THE PATRICIANS COME UP MOUNT AVENTINUS.

fed and taken care of? The hands must work for food for you, the feet must do your errands, and the eyes must keep watch for you. You are idle and good for nothing. We will take care of ourselves, and leave you to look out for yourself.' So the hands and feet busied themselves with their own affairs, the head ceased troubling itself to provide food for the stomach, and the eyes had plenty of leisure, and they paid no attention to the stomach's entreaties and cries of distress. For awhile all seemed prosperous; but very soon the head began to grow confused and dizzy, the eyes lost their clear vision, the hands lay limp and listless, and the feet dragged as if shod with lead. The stomach was the source of strength and beauty for the whole body, and in injur-

our own people as protectors. Give them power to release us from any cruel and overbearing noble. Make their persons as sacred as the messengers of the gods, and let whoever harms them be accursed. Give us two TRIBUNES OF THE PEOPLE, and we will be content!"

The plebeians took up the words, and repeated them with a great shout: "Forgive our debts, and give us two tribunes of the people, and we will go back!"

Then the patricians consulted together. They agreed to the conditions. A solemn treaty was made, as between two nations, that the rights of the plebeians should be forever guarded by their tribunes.

It was a joyful day for our little Lucretia and her

mother when the company of the commons returned to the city. Her grandfather, Valerius, looked ten years younger. But his wife Virgilia only shook her head doubtfully: "Promises are good, but it is better to see how they are kept before we rejoice too much."

These fears were destined to be realized. Thirty-four years later the plebeians were wrought up to such a great state of indignation and anger by the acts of one of the decemvirs, named Appius Claudius, that

the nobles were forced to give them greater security for freedom. The hated decemvirs were punished, the tribunes of the people were restored, and the plebeians were counted as a part of the Roman people.

Thus it was that twice in the early history of Rome the common people rose and fought for their freedom. Thus was it that they obtained it.

NOTE. — Collateral Readings: Arnold's "History of Rome," chaps. viii. — xv. "Early Rome, from the Foundation of the City to its Destruction by the Gauls." W. Ihne (Epoch of History Series), chaps. xii. — xviii. Bonner's "Child's History of Rome," vol. i. chaps. xii — xviii. "Lays of Virginia," Macaulay's "Lays of Ancient Rome."

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

III.

BUSY BODIES.

DON'T put a hyphen between the words: I do not mean common "busy-bodies," people who meddle with other folks' business. I do not mean people at all. I mean some busy, busy birds, who mind their own affairs, work diligently for their living, and set their whole lives to music of the gentlest monotone. It has not even the two notes, up and down, down and up, by which an editor once described the compass of his minister's voice. It is one never-varying *hum-m-m-m-m-m-m*, with not so much as a final dropping by way of emphasis. On and on, like the story which was never to come to an end, so greatly desired by the Eastern king, until he found it, as you will remember, running on day after day, and week after week, in this wise: "And there came another locust and carried off another grain of corn, and there came another locust and carried off another grain of corn," till, as you know, the poor king went frantic, and offered anything, everything he had, only to have done with the locusts.

And there might be such a thing as too much humming-bird.

I never discovered that this bird produced any other sound except a faint kind of squeal — for it is more than that it is a chirp. It is about such a squeak — to call it by another name — as a bungling player experimenting with the strings of a violin sometimes makes: small, quick, half plaintive, half shrill, and snapping short off.

You have a chance to see the whole mode of operation — both of the humming and the insect-like cry — if you catch the bird and put him under a glass. This we have frequently done. Humming-birds are door-yard folks who are apt to come in when they

don't mean to; and once in, they seem so turned round that they don't know the way out.

I have sometimes thought that the reason why a humming-bird will dart so recklessly in at a window, is because he is so giddy with whirling that he does not know what he is about. Never creature made such a tee-totum of himself. In getting his food, he spins around on his bill, using the point of it as a pivot. If it is the tube of a trumpet honeysuckle, — his favorite flower — he will gyrate round and round like a dancing dervish, till you would not be surprised to see him drop in a heap, as the dervish does.

On one occasion we discovered a humming-bird in great trouble. He had flown into the wood-house, and when first seen, was darting desperately from one end of it to the other, far up beyond the reach of help. We set the high double doors wide open, in hope that he would go out. But, though there was room enough for my Lord Mayor to have driven through in his coach, to this humming-bird's range of vision it was no better than a knot-hole. Carlyle says that the eye sees only what it has in itself the power of seeing, or words to that effect. But our poor wanderer, who had been used to space itself, and to soar into the infinite — what was the power of seeing in his eye good for, if he could not discern the way out?

Back and forth, back and forth, he went, with the regularity of a shuttle, uttering those pathetic squeals as he shot over our heads. At first, he was as far up as he could go, close under the ridgepole; and he went the whole distance of forty feet from one gable-end to the other. After a while, he began to sink a little, and did not quite reach the limits. Then he flew lower, and swayed against the side of the building, plunging recklessly into cobwebs, and almost dashing his head against the cross-beams.

A sorry sight he was getting to be. We stayed by

him as we would by a fellow-mortal in need of help. We tried to direct him out; we tried to scare him. But his small being was possessed with only one idea. He knew nothing but that treadmill beat. He was as one distraught; and he redoubled his cries for the aid he had not the sense to avail himself of.

Pretty soon he swayed out against the wall, and slipped and slid down, struggling to save himself, and uttering an anguished cry as he found it was of no use. Who knows but the terror was as great to him, in proportion, as to a man when he feels himself going over a precipice? At any rate, the pain and anguish and fright of dumb animals is so acute, as it is strongly manifested by them, that our care and our sympathy and re-assurance ought never to fail them.

He was certainly relieved when a friendly hand received him; and he sank down into it, literally used up. He was a very much demoralized bird indeed. After a few moments he began to look around, and, on being carried out into the air, he came to himself, much annoyed at the state he found himself in. He was covered with cobwebs, his feet were almost tied together with them, and his attire was so disarranged that his best friends would have refused to recognize him.

A bird's instinct is to keep himself tidy; at once to smooth into place any feather that may have been disturbed. It is because they are so uncomfortable if anything about themselves is out of order, that birds have such a dislike to a windy day. No doubt the ruffling and tossing about of their plumage is as annoying to them as to you is the feeling that your shoes are untied, or that something is coming off. If they neglect to dress their feathers, it is pretty sure evidence that they are sick. They hate to be soiled.

We were sure that our little fellow was all right when he began to look himself over with a view to starting for home. He betook himself to a clothes-line, and there sat and patiently picked off the cobwebs; and when he was restored to his pristine gloss, flew away—perhaps to tell his adventures to his family, who must have wondered what had become of him.

To see a humming-bird in swift motion on those filmy wings that are almost invisible, one hardly gets an adequate idea of his splendid beauty. If you can capture one and place him under a large glass shade, raised a little to admit air, and place it in the sunshine, you will see a creature who seems to have caught the sun's radiance on his shining plumage. Some of the inhabitants of the tropics name him "the sunbeam."

You need not feel a bit concerned if he should appear faint and far gone with exhaustion. He is only making believe; he is "playing possum." That is a trick he has. A chimney-swallow will do the same thing, and appear so limp that you are sure he is almost dead; you can even see a film glazing his eyes as they close. But hold your open palm out in

the air a few moments, and, presto! your bird that lay in it like a rag has swiftly opened a pair of the brightest of eyes, winked at you, and shot like an arrow straight up in the blue ether.

The male humming-bird only has the ruby throat. I am speaking of our one kind at the north. There are more than three hundred species known; and they are "strictly confined to the continent and islands of America." What a pleasure to European travellers hither, to see even our ruby-throat, who, handsome though he is, is not to be compared with some kinds in the tropics and in South America! You, who read those sketches in which the Duke of Argyle recorded his impressions of our country on



IN THE HONEYSUCKLE.

his recent visit here, will not have forgotten how eager he was to see the humming-bird. No doubt he felt much as we should about the skylark if we went to England.

The ruby on the bird's throat varies with his motions. Sometimes, as you see him out of doors, it is like a square of crimson velvet, or the glossiest, silkiest, shiniest plush. But watch him under a glass, right in the sun. It is now like dazzling gold, and now like fire. Red flame comes and goes in it, as colored light vibrates and pulses in a precious stone. His back is a shifting iridescence of gold and green, like burnished armor for brightness; and it seems all made of scales overlapping one another—a glittering coat of mail.

The last one we caught was a female; and her we

put to the magnifying test. At first she made a squeak-k-k-k-ing objection, but soon settled down in the sunshine, and from time to time threw her head back, and placed herself in different attitudes. She was probably taking a sun-bath, as a mocking-bird is so fond of doing; but if she had been posing for a set of photographs, she could not have done better. By and by she began to prink and preen her feathers, dressing her wings, first the left and then the right, passing the feathers one by one through her bill. This done, she flirted herself, as a vain little girl will shake out her flounces and then look herself over.

The slim black bill was like a thorn. Her eyes were soft and bead-like. The shape of her body was like a round little fish; and the tiny claws were black and slender, and curled up as if they had no use except to cling with. Her head was lustrous bronze and olive, dusted with golden green; her breast pale mouse color, and about her neck it was specked with slate in oval markings, making a pretty collar. Under the wings it was soft otter or buff; and all her back was a shimmer like the male bird's on a subdued tone; and it appeared on examination that each separate feather was delicately outlined in a sort of buff brown.

We wished to find out whether humming power was in those wonderful wings. When outspread they had a transparency in common with the fins of a fish. Each feather had a thin but strong shaft.

We could never find a nest. A friend was more

fortunate. While mowing in the orchard, the men of the family noticed a pair of humming-birds hovering about; and marking the spot, a search was made. If it had not been for their movements, the nest would not have been discovered, everything was so planned for concealment.

It was placed where two limbs of an apple-tree met, and was covered with the same kind of lichens that grew on the tree, so that it would easily have passed for one of those gray-green rosettes. It was lined with soft moss, and in it were two elliptical white eggs, about the size of a pea. The finders waited until the young were hatched, saw them safely fledged and sent out into the world, then removed the nest and took it to the house.

Another, which we saw, was like a mossy knob, and was one-sided where it fitted to the branch; and all the bits of lichen were glued on the outside with saliva. It was not much larger than an English walnut; and within, it was a soft little affair, wadded with that *écru*-colored down from the cinnamon ferns which seems so like fine wool.

Since writing the above, I have been told by a lady that she once saw three humming-birds sitting together in a honeysuckle, and that one of them "was singing a fine, microscopic song."

Perhaps he was an improvisatore. The case was surely an exceptional one. Perhaps it will tempt the folks of the Reading Union to follow the example of such men as Nuttall and Audubon, and observe for themselves.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

IV.

PEOPLE WHOM WE MEET.

"If you should ever come to Cambridge, or near headquarters, I shall be happy to see a person so favored by the Muses, and to whom nature has been so liberal and beneficent."—WASHINGTON: *Chips from the White-House*, p. 22.

"The Indians shall have my first attention; and I will not rest until they shall have justice."—LINCOLN: *Id.* p. 283.

"Other nations see their people going, going. We see from every quarter the people of other countries, coming, coming, coming."—HAYES: *Id.* p. 373.

"No child of mine shall ever be *compelled* to study one hour, or to learn even the English alphabet, before he has deposited under his skin at least seven years of muscle and bone."—GARFIELD: *Id.* p. 408.

WHO would guess that the polite invitation above quoted was written to a slave girl? It was. Her name was Phillis Wheatley. She addressed a complimentary poem to General Washing-

ton, and he wrote to thank her for it. His whole letter is given in *Chips*. It shows that even a hundred years ago wise and good men were willing to treat colored people kindly and politely. Yet many of the States held them in slavery. At length a great war arose, the result of which was that slavery was abolished forever. Ask some grown person to tell you about the war and emancipation. There are no slaves to be seen on the journey from the State-house at Boston to the capitol at Washington, but we shall meet many negroes. In the whole land there are about four million negroes. Almost all were born in this country. A great many were formerly slaves. On account of slavery the colored people are very generally poor and uneducated. Probably they are not yet capable of learning as fast and as much as white persons, or if they are, they have not had a good

opportunity. They are willing to work, but need to be told what to do. They are not as ingenious or as prudent and thrifty as some white persons. Most of them are proud of their liberty and new right of voting, and seem endeavoring to improve. In some places the white people oppress or cheat them. But the law now declares that they shall everywhere have equal rights with white persons.

A gentleman riding in the cars by the side of a very intelligent-looking old colored man, asked him, "Why do not the negroes grow rich?" "Dey ain't savin'," he answered; "if dey gits a few dollars dey moves roun' a sight spryer to spen' it dan dey did to airn it." "Tell me," said the gentleman, "about the quarrels." Said the old negro, "Sometimes de white folks has a row, and sometimes de niggers has a row; and sometimes de white folks pitches into de niggers, and sometimes de niggers pitches into de white folks—and den' agin dey don't. But I say, massa, *We wotes!*"

This incident is significant.

The chief classes of people in America are the white people who were born here, the negroes, the Indians, and the immigrants. Of Indians there are about three hundred thousand. There is, however, very little chance of seeing one on a journey from Boston to Washington, for very few of them live in the towns and cities of Eastern States. When the discoverers first arrived in America, they did not know they had landed on a new continent, but supposed they had reached India. Therefore they called the copper-colored natives Indians. They soon found that the name was not a correct one, yet they continued to use it. Persons who wish to speak very accurately call the red men the aborigines. "Aborigines" means "here from the beginning." There are numerous tribes of these American Indians, and they differ in character and habits. Some tribes are comparatively gentle, teachable, industrious and honest, and have become quite civilized. Others are fierce, wild, savage and treacherous. Some tribes live quietly on large tracts of land called Indian reservations, which have been set apart for them by government. Others roam over unsettled parts of the country, hunting and fishing as they find opportunity. And a small number dwell among the whites in the towns and villages. Most persons think that injustice has often been done to the Indians. It was when the great civil war was closing, and just before he was shot, that President Lincoln wrote, "I will not rest until they shall have justice."

A great many of our people came from foreign lands. Persons who go from a country to live in another are called emigrants. Persons who come from another country are called immigrants. Ever since America began to be settled, immigrants have been coming very steadily. As fast as they have found homes and work, many of them have written to their friends in the Old World, praising America

and advising them to come. For three or four years past an immense number have been coming; in 1879 nearly 150,000; in 1880 more than 300,000; in 1881 probably 500,000. This is what made President Hayes say, "We see people coming, coming." They come from almost all European countries. Most of them are honest, industrious people, bring some money with them, and are anxious to buy farms, or to take work for wages as soon as possible. All such immigrants have always been made welcome. There is a curious office at Castle Garden, in New York city, where the shiploads of immigrants are received, and where they stay for a few days, until they can decide where to go. Officers are there ready to aid them. They need help, for they have not much education or business experience, and many of them do not understand our language.

America has for many years declared that every person who chose to leave his native land and remove to America or any other country had the right to do so. Many of the countries abroad have said, "Our subjects have no right to move away without our leave." Great Britain used to say this; but in 1870 she made an agreement with our nation that the people of the two countries might come and go as they pleased. There is a somewhat similar agreement between China and the United States. Not quite a year ago Switzerland made a new law saying that poor persons not able to work, and young children, should not emigrate from Switzerland to America, unless there were friends or money here to support them. This law also says that the ships must carry Swiss emigrants comfortably, give them good food, and medicines if they are sick, and take good care of their baggage.

When an immigrant arrives, the law will immediately take care of him as a person. If any one cheats him, or steals from him, or hurts him, he can complain to the courts, just as if he were an American; and the wrong-doer will be punished. The immigrants have the benefit of our laws from their arrival. But a foreigner must be naturalized before he is allowed to vote. Naturalizing means that a court gives him leave to become a citizen. And he cannot be naturalized until he has lived in this country at least five years.

Of course young citizens will wish to know somewhat of the rules about children. The law means to be especially kind to children, and very careful and considerate of their welfare. Just as General Garfield said that his children should not be compelled to study until they were at least seven years old, so the judges all say, "We will not punish a child for anything, whatever it may do, before it is seven. Until then let its parents and teachers punish it if necessary." The law will protect the rights of the very youngest child. Any one who is cruel to a child, however young, may be punished. The littlest boy or girl may own property, and the judges will appoint a guardian to take care of it until the little owner

grows old enough. Between seven and fourteen a child may be punished for breaking the laws, provided it knew better. If a policeman should arrest a grown man for stealing, and carry him before a judge to be punished, and the man should say that he did not know that stealing was against the law, the judge would say, "That makes no difference." If the person arrested were a lad above seven but under fourteen, the judge would ask, "How do you know that this boy knew that what he did was wrong? Unless he knew that, I cannot send him to jail. His parents must take charge of him, or he should be sent to a school or society to be taught."

About a year ago a boy eleven years old was tried for assisting his father in killing a person. The judges said that as he was not fourteen, he could not be punished without proof that he knew the wrongfulness of what he did. Without this they would suppose that he was a dull, weak boy who did whatever he was told; and they set him free. If the person arrested were a child under seven, the judge would not hear the complaint at all, except, perhaps, enough to send the little thing to some kind persons who would care for it. But in some of the States the laws state these ages somewhat differently.

It is often said until a lad is one and twenty he cannot make agreements. This is not quite correct. He cannot *bind himself* by his agreements. For example, it is not against the law for him to buy a horse, if any person will sell him one, nor for him to promise to pay the price next month, or next year. But the horse-dealer cannot compel the lad to pay the money by a lawsuit. If he should bring such a

suit the judges would say, "This lad's promise to pay did not bind him, because he was not of age when he made it." The rule protects young persons from being cheated. They have twenty-one years allowed them for learning about business and property; and during those years they are not compelled to perform their bargains. Hence, whenever they find they have been cheated, they can "back out." This does not apply to marrying, though that is a kind of bargain. If a boy above fourteen or a girl above twelve were to be married, perhaps the law would say, "You cannot retract."

At twenty-one, the young man becomes "of age;" after that, his bargains are binding upon him. Whatever wages he earns belong to him, and he is allowed to vote. The same is true as to girls, except that they do not vote, and that, in one or two of the States, girls are called "of age" at eighteen.

In most European countries children have less liberty than in America. Thus in France there are very stringent rules for keeping records of births; also a formal way of adopting a child, or of emancipating one—that is, of setting him free from authority of his parents before he becomes of age. French parents can by law govern their children more strictly, and longer, than do Americans, and have much more power to prevent their marrying; and can have a disobedient child, if under sixteen, imprisoned for a month; one above sixteen, for six months, or even more if six should not be enough. And if any one else has left property to a child, the father can spend the whole income, being only bound to maintain the child suitably.

WAYS TO DO THINGS.

IV.—FOR A GIRL'S ROOM.

BY SUSAN POWER.

SO many pretty things go to the furnishing of a room nowadays that I wonder how girls can ever spend time chattering, with their hands idle, when they might make most of these decorative touches themselves.

The cosiest of additions to a lady's bedroom is a cretonne table and chair to match. Boston art-furnishers make these for Beacon Hill houses charmingly, and yet a girl could cover such a set for herself. The chair should be a low, splint-seated rocker, like that in which the pretty girl sits tilted in Miss Humphrey's picture heading the first of these articles in the November WIDE AWAKE. Many such old-fashioned chairs are scattered about country homes, and should be made much of for their ease and venerable

age; and the best dealers supply new ones in similar styles as "occasional" chairs for cottage sitting-rooms and summer-houses. If you are so fortunate as to own one of these little grandmother's chairs, paint the old frame either black with narrow circles of red, blue and gilt on the mouldings, or else dark cardinal picked out with dots and circles of black and dull gilt, or bronze green with a little dead gold and pale brown, or cream color with black and gold rings. The color should be mixed for you by a house-painter, using copal varnish if you want a gloss, or turpentine varnish if you want flatted or dead finish, which is often preferred. Japan varnish does not last well on furniture or floors which are in use. For the seat, make a cushion of ticking, filled with feathers or curled hair, like that in mattresses, only have it well filled and firm. Excelsior, or straw with a layer of hair or feathers over the top, makes a good, cheap cushion. Cover with dark gay cretonne, chintz or momie cloth,

with a ruffle three inches wide laid in small box-plaits three-fourths of an inch wide. To look well, this ruffle should be starched, after it is hemmed, with strong starch in which a bit of isinglass two inches square has been dissolved after soaking in cold water. This gives a finish and crispness to the material which is not lost with use. Iron on the wrong side, plait, and then catch the plaits together on the wrong side to a tape half way from the top. Dampen the lower edge, and flute with fluting-irons or a clean pair of curling-tongs. This is the way upholsterers make the trim flutings which edge lounges and curtains so prettily. This ruffle should go on the four sides of the cushion without meeting at the corners, which leaves a place for the legs of the chair, round which the ends of the ruffle are held by a bit of elastic cord sewn to the ruffle. Cushion the back if you like, letting the ruffle fall back over the top, and just below the back. This cover must be double, to slip over the chair frame, and the front must be well padded.

To correspond, you want a small pine table, 27 inches high, with top 18x27, square legs two inches through, and a lower shelf, the same size as the top, seven inches from the floor. This table, top, legs and shelf, is covered with cretonne like the chair, and finished with a fluted ruffle on the edge of each shelf. The best shape has the corners taken off two and a half inches from the ends. Line the top with coarse flannel, old cloth, or cotton flannel, pasted on and ironed smooth while damp. When dry, cover with cretonne, turning the edges under the board to conceal the wood, nailing the cover to the under side with small tinned tacks, which will not rust. The legs are smoothly covered with a straight piece of the material pinned in place, and pasted or glued very neatly, or fastened with small dark tacks which will not show. Brass or silvered nails are only used with velvet, leather, tapestry or such heavy coverings, and are not suitable to cotton fabrics. The ruffles are hemmed on each edge and stitched by machine, then tacked on the edge of the stand by invisible tacks between the plaits. A piping fold of red twill on each side the ruffle gives dark cretonne a gayer effect, and little gathered pockets bound with red may be hung at each corner. The frame of the table can be cut from dry-goods boxes by any clever boy, and there are girls handy enough with tools to put it together themselves, if they can get no help from their own brothers or anybody else's about the business. The little cosy dark chair and table will repay all the effort of making, for their very look invites to reverie or *tête-à-tête*, and they will be two friends whose company and comfort are always ready but never intrusive. The low table is a great convenience, it holds so many things wanted at once. The lower shelf steadies the whole frame, and affords a place for the big dictionary and books of reference, or the basket or roll of pieces when at work.

Of course you want a work-basket to suit that table, or you will when you see one of the red-bound, gay

cretonne baskets sold in the fancy shops this season. It is an old pattern revived, I believe, but it certainly is the dearest, quaintest, gayest of baskets. You see in one picture my own particular pet basket, which



CRETONNE WORK-BASKET.

the artist has drawn from the little Queen Anne chintz affair which holds my embroidery silks and darning-cotton. Untie the ribbon which draws it up, and it falls open and flat for carrying in a trunk. The materials for making such a basket are one-half yard of cretonne, that in Japanese figures of fans, palms, screens and dwarf chrysanthemums being the choice, some bits of pasteboard, for which old boxes will

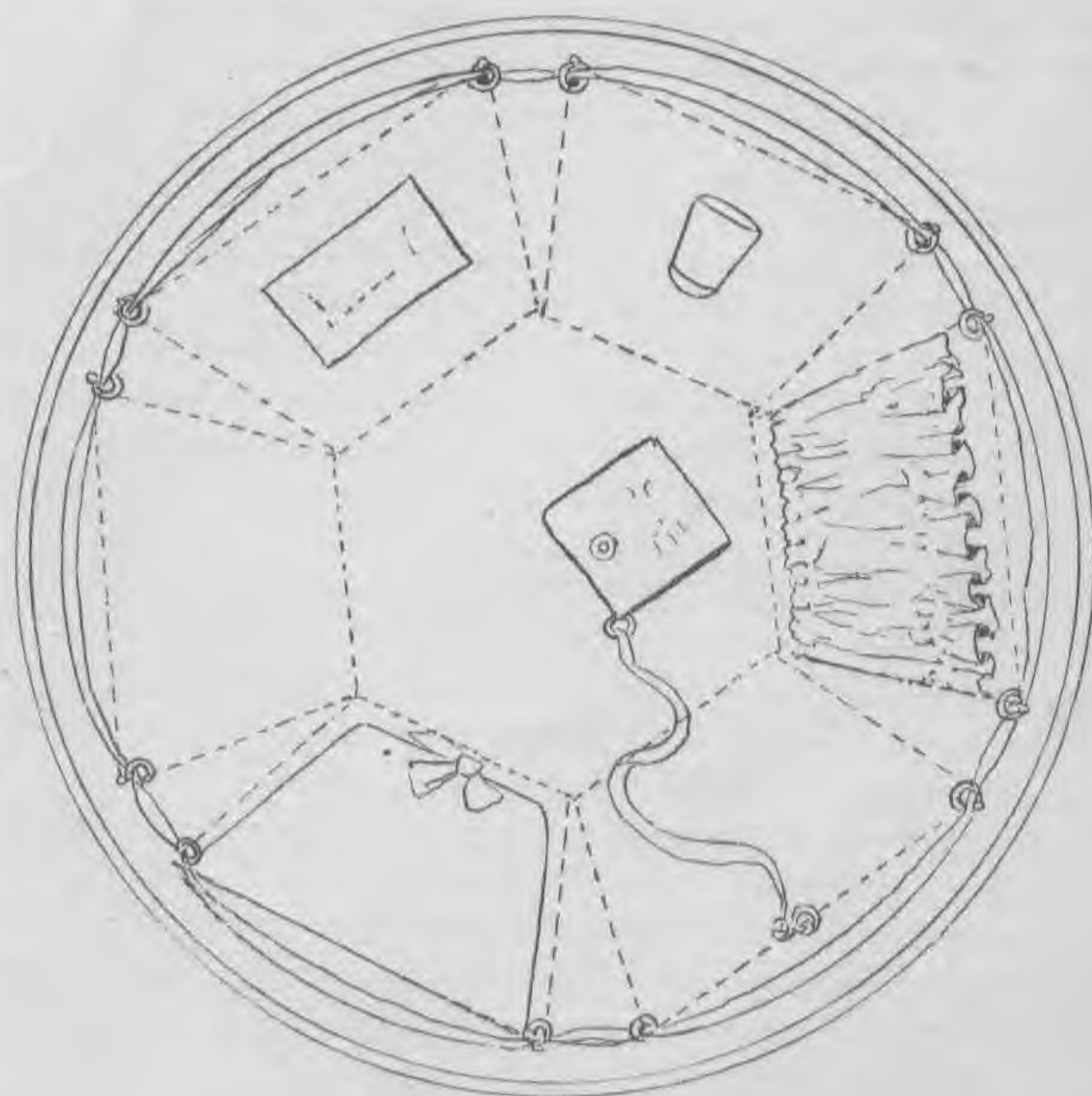


DIAGRAM FOR WORK-BASKET.

answer, two and three-fourths yards of soft red ribbon half an inch wide, and twelve small brass curtain rings. Cut a six-sided figure of pasteboard six and one-fourth inches across, with each side three

and one-half inches; six pieces, as in the pattern, for the sides. From the Japanese cotton cut two round pieces sixteen inches across. Baste the pasteboard evenly between the two rounds of cretonne, according to diagram, and stitch them in by machine with cardinal silk. Bind the edges with cardinal ribbon; sew a ring to each corner of the side pieces; add a little gathered pocket for spools on one side piece; needle-leaves of flannel with a cretonne cover opposite; a pin-cushion on another side; a thimble-sheath, and loops to hold your scissors; sew a tiny button-bag to a long end of ribbon caught to the basket, and run a yard of ribbon through the rings to draw the basket in shape. It is a pretty, a convenient and usable thing,

Not too bright and good
For human nature's daily —

spools. You may prefer one of the Turkish baskets, new last year, with upright handles, and falls of garnet cloth or velvet, embroidered in Turkish stitch in sprays which combine Persian pink, bright bronze, dull blue and olive, with fringe of combed tassels in the different colors of the work. The little champagne baskets of wicker, with quilted or tufted lining in blue or garnet satin, are elegant enough for jewel-cases, as well as to hold lacework or delicate embroidery. But for everyday use, give me the neat, coquettish Queen Anne chintz basket.

The combed-wool tassels are used to ornament so many kinds of fancy articles that you need to know how to make them, as they put shreds and ends of wool to use in pretty fashion. The usual size of these tassels is from an inch to one and a half inches in length, as larger tassels fade at the ends and soon grow shabby. Fold your ends of wool ravellings in a dozen or twenty strands, twice the length of the tassel, and tie firmly in the middle with silk. Slip the silk over a stout pin fixed in a block of wood, double the wool, and comb it out with a fine metal comb, or with a row of small pins rolled up and tied with waxed thread into a little round brush. Comb gently from the very tips of the wool at first, till the tassel is fluffy and downy. The combing wastes half the wool, but the fluff will do to stuff pin-cushions or make daisy-tufts. When combed fine, tie the tassel one-third from the top with silk or crewel, cutting the ends of the thread very close. A favorite decoration for baskets and bracket-falls, pin-cushions and box-covers is a fringe of such tassels in a succession of colors, for instance cream, salmon, peach-pink, pale olive, turquoise, peacock, straw, then pink again, and so round the basket.

A catch-bag is indispensable if one wants a neat room. It is nice made of cretonne like the work-basket, carrying the idea that they belong together. Have a round piece of pasteboard five inches across covered with silesia and cretonne for the end of the bag, and on this gather a straight piece of cretonne a quarter of a yard deep and twenty-two inches long

with an inch hem at top, and a casing in which a fine rattan fifteen inches long is run to hold it open. The bag hangs by a piece of crimson braid from the corner of the work-table, with its mouth open for clippings, which else would litter the floor or be lost. As you learn fancy work, you will grow thrifty. Finding how every bit and clipping has its use, to be turned into something convenient or pretty, you will be unable to waste anything. Thinking of all the trouble it has been to make even a shred of calico, the work to grow, spin, weave, color and calender, it seems stupid and wanton to destroy it when it has not half fulfilled its uses, when patch-work quilts are needed by Michigan families, and hundreds of poor settlers the world never hears of, when paper-makers have not half the rags they need for making note paper, and when one makes a pin-cushion there are never half enough wool bits for the filling. Let whatever your fingers touch turn to something brighter and better. Be a maker, a preserver, not a destroyer.

The stocking-bag, for hose that need mending, is traditionally of turkey-red twill, and is a gay-looking object hung on the inside of a closet door. My bag is lent to the sewing society of South Applefield in west New York, for a pattern for bags for missionaries' wives in Utah and Nestoria, and I can't send across two States to get it to-night, but I will have that pattern for you before stockings are past darning. The bag is a straight yard of twill, half a yard wide, gathered on each edge to a side-piece of stout pasteboard covered with twill, and the opening drawn up with red ribbon; one of the stiff sides has a flannel leaf for darners and a flap-cover of red; the other has a case for cards of darning merino. But one of the indispensables for every girl's room—and boy's too for that matter—is a bag for soiled collars and handkerchiefs. The best kind for this purpose is of coarse white or half-bleached "butcher's" linen, with figures drawn in outline with indelible ink on the sides. Or the bag may be of fine crash with figures outlined in washing crewel, for the bag as well as its contents must be washable. A "soiled" bag or a scrap-bag may be disguised by a fancy case. If you have a red or blue paper fan which has lost the rivet, don't throw it away, but run a narrow ribbon through the eyelets in the ends of the sticks and draw them together, fasten the sides to each other by ribbon run through holes pierced in the end sticks, tying neat small bows down the side. Paste or baste to the upper edge of the fan a bag top of thin red or blue silk, five inches deep and drawn up by ribbons. The plain linen bag can be slipped inside this case, and the whole hung from a projecting hook, such as is used for plant baskets, or under a gas-burner. Finish the point of the fan where the sticks come together with a large bow or a bunch of wool and silk tassels. The old paper fans make pretty lamp-shades by fastening the ends and sides with tiny ribbon bows as described, inverting them and slipping over the lamp chimney, on the wire frame provided for shades.

HEALTH AND STRENGTH PAPERS.

IV. — WHAT I SAID TO HER MOTHER.

BY MARY J. SAFFORD, M. D.

MY little patient came back with her mother that same afternoon. She spoke very pleasantly to me:

"I understand my little girl to say that she needs no medicine, but that instead you wish to lecture her mother."

Yes, that was just what I wished. I proceeded to do it, first standing the poor girl up before us.

"Your daughter," said I, "is not diseased. She is simply suffering from bad habits, and needs her mother's immediate and patient supervision. Look at her poor little figure! She was not born so. You have allowed her to become this. Her spine was straight and erect. Now it curves from the neck to below the shoulders. Her head and shoulders have been thrown forward, because she has sat in a wrong way. How could you let your child grow into such a shape!

"Now look at her chest. It is correspondingly concave. The space occupied by the lungs is proportionally lessened. Because the lungs are so delicate in structure, and yet so vital in their importance, they have been most carefully placed and guarded against pressure. The ribs protect them on either side, the breast-bone in front, the spine and the broad shoulder-blades on the back; and to keep these bones in just the right position, muscles and ligaments are so arranged as to hold them in place. If one of these muscles or cords gets shortened, lengthened, or weakened, we very soon have distortion where there should be symmetry.

"The muscles that should help to hold your daughter erect are lengthened, relaxed and weak; in consequence her shoulders stoop. At present she cannot hold them up. The muscles of the chest are contracted—in her case they have become rigid. Let us see her try to take a full deep breath."

The girl did her best. She was as interested as her mother. The idea that she was *deformed* had taken hold of her.

"You see how she gasps, and how the shoulders are drawn up. It is actually impossible for her to fully inflate her lungs and expand her chest. You must at once begin to bear in mind that if every individual cell in the lungs is not filled with air, *that cell becomes a dead cell*, and may be the beginning of disease. If any of your daughter's school-friends stoop as she does, I hope you will tell their mothers what I say. — Now you may sit down, my dear."

The girl sat down in the way that had become natural to her. She slid down until she rested the weight of her body on the lower segments of the

spine. I called her mother's attention to this. At first she could see nothing wrong in it. I explained to her how this position caused heat and pressure where the child spoke of having pain.

"*This lower part of the back was never intended to sit upon,*" said I emphatically. "The spine was made to keep erect, sitting or standing. The large bones of the pelvis are arranged to support the body in sitting, and thick, fleshy muscles form cushions over them for our comfort. Your daughter cannot continue these habits in sitting without interfering with the right position of the pelvic organs, and *that* will be the beginning of disease and suffering in *them*—perhaps at the same time that the dead cells are working mischief in her lungs."

The tears came into the mother's eyes. The little girl looked at her, then at me. But I went on, again placing her in front of us:

"Look at her once more as she stands. Not only do the shoulders stoop, but one shoulder is higher, as is one hip, than the other; and there is a slight lateral curvature of the spine."

Then I requested her to walk across the floor.

"Has she an elastic step?" I asked. "Does she walk as if there were joy in movement? The gladness of the lamb, the colt, the kitten, should still be in the movements of so young a creature. Her step is shambling—how much her shoes are responsible for it we will investigate later. You see there is no swing to the body, no suppleness, not even lightness. The arms are held rigid. She walks as if the act of walking were imposed upon her as a duty, as a necessary task.

"No wonder you sigh over the ill conditions your daughter presents. But with care and the vigorous and persevering exercise of common sense she may overcome her present troubles and bad tendencies. The first step to restore harmony and symmetry to the muscles is to take gymnastic exercises of the right kind. The sensible thing is that you yourself should accompany her to the gymnasium, and take at least one term of exercises with her, so that you may appreciate their value, and also the importance of certain movements above others to meet her especial needs. When you have thus learned how to guide and direct your daughter in gymnastic movements, you can arrange simple and inexpensive gymnastic machinery in your own home, so that these exercises may become to her a pleasurable daily habit.

"You will probably take her to Miss Allen. She will see that your daughter's first need is to learn how to breathe. She will prescribe a five minutes' 'breathing exercise,' night and morning. This exercise will put and keep her lungs in good working order, and gradually broaden her chest."

The "breathing exercise" and the other gymnastic

treatment which she planned for my little patient, Miss Allen herself will describe to the Reading Union by and by.

"Having started right at the gymnasium," I went on, "you must insist upon walks, because open air and sunshine is as needful as exercise. You must interest her in walking by walking with her, and by creating pleasurable aims and interests to call her out of doors. There is flower-hunting after you have read aloud to each other interesting plant papers; and let her in her out-of-town excursions learn the native trees by their leaves and bark and form. Interest her in geology by calling her attention to the stones she may see everywhere.

"With all this, she must have sleep enough.

'Early to bed,' must be imperative; but if nature rebels against it, I should not enforce the rest of the old adage, 'early to rise.' Moreover, make time for her to take a nap during the day if she will."

As she arose to go, the mother looked down at her daughter with a sigh.

"I feel appalled at what you have set me to do," said she: "medicines would be so much easier."

"I don't feel so, mother," said the girl. She was really trying to stand erect, and there was a gleam of something hopeful in her eyes. I was interested as I saw this spark of energy.

"Come here again," said I, "to-morrow if you like, and I will say a few little things to you about your daughter's dress, and about her food."

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

IV.

HANDEL, THE FATHER OF THE ORATORIO.



GEORGE FREDERICK
HANDEL.

THREE wonderful men they were: Handel, the father of the oratorio; Haydn, the symphony poet, and his beloved pupil, Mozart. The lives of these men, who are the Homer, Dante and Shakespeare of music, read like romances, and the charm begins with their childhood. But before we can intelligently introduce to

you these great masters of musical art, we must give you a view of the growth of music after Ambrose had arranged sweet singing for the famous church at Milan.

Before the sweet symphony, the classic overture or the grand oratorio were possible, as we to-day understand them, great progress in musical invention had to be made. *Counterpoint*, the beautiful art of consonant or allowably discordant sounds—the soprano, alto, tenor and bass of the common form of music—began to be understood in the middle ages; and about the year 1450, the parts were increased to six—bass,

baritone, tenor, contralto, mezzo-soprano and soprano.

About the end of the fourteenth century, just before the era of scientific music, viols came into great demand. They were made in many shapes, some very graceful and beautiful. A family by the name of Amati, at Cremona, manufactured a wonderful kind of viol, now known as the violin. Stradivarius, a pupil of this family, brought the instrument to perfection, and made it such an interpreter of human feeling that it became the soul of the orchestra. It was found that all sounds of nature, and every expression of emotion and passion, could be imitated by this marvellous instrument, and that even suggestions of fancy could be conveyed by it to refined and susceptible natures. The discovery of the violin seemed like the creation of a new order of beings in the musical world. It was a fairy, a siren, a magic influence, an imp, an angel. A violin brought a fortune. Kings became enamoured of it, and lost their wits, and the musicians who yielded to its seductive influence seemed bereft of all other ambition than to test its limitless resources.

We have shown how the reeds of the Nile in Egypt were developed into the Pipes of Pan in Greece. The simple Pipes of Pan became organ pipes in Italy, and, lo, Germany produces the grand organ. The lyre became a harp, the harp a dulcimer, the dulcimer a citole, the citole a clavichord, the clavichord a virginal, the virginal a spinet, and the spinet a harpsichord, or piano.

Old-time instruments were improved, new wind instruments were invented; and now, with the art of counterpoint brought to perfection, with the violin,

the harpsichord and the grand pipe organ, the world is ready for the great masters of music to appear. First among them, the leader of the great host of tone poets, came George Frederick Handel.

He was born at Halle, Lower Saxony, on the pleasant banks of the Saale. The child had a soul formed for music. A musical sound filled him with happiness.

His father, Dr. Handel, noticed this love of music with sorrow. "Music," he once said, "is a fine *amusement*, but as an *occupation* it hath little dignity; its object is nothing but mere entertainment and pleasure."

The boy's chief delight was to play the instruments found in the Doctor's home. The Doctor forbade him the use of any instrument for practice, and insisted

Then turning to the angry Doctor, he said, "The boy has genius, and you do wrong to repress it. Let him become a musician."

Soon after this episode the delighted boy was placed under the best musical instructors. Music now absorbed him. He aspired to learn every form of the art, to play all instruments, and to make himself the master of every variety of musical composition and to improve each in its turn. With this purpose taxing all his energies, he passed a stainless youth, and was capable of great undertakings in music in early manhood.

At the age of twenty-one he went to Florence, beautiful Florence! thence to Venice to see the carnival, and thence to celebrate Easter at Rome. The beauties of Italy inspired him to write, but his



THE BLIND HANDEL.

that he should not be taken to concerts. There was a dumb spinet, a sort of muffled piano, in the garret of the house, and to this little Handel hastened whenever his father was engaged or was out of doors. In the garret the child taught himself to play.

One day Father Handel set out in his carriage to visit a son in the service of the Duke of Saxe-Weissenfels. He had gone but a little way when he heard little George calling after him, "Let me go, too." The Doctor stopped the carriage and took him in.

Soon after the Doctor's arrival wonderful music was heard in the chapel of the ducal palace. It was a little boy who was playing.

"Who are you?" exclaimed the Duke.

"Little Handel of Halle," answered the performer.

"Bravo!" said the Duke.

compositions at this time were largely musical tragedies. He returned to Germany in 1709, and connected himself with the court of George of Brunswick.

He was invited to England. His coming was a triumph. He was sung in the streets, played on all the bands; his name was the first in every musical assembly, and his compositions made fortunes for the publishers.

To one of the music dealers who became much enriched by the sale of one of his works, he said,

"My friend?"

"Well."

"The *next* time, *you* shall compose the music of the work, and *I* will sell it."

In his successes in London he quite forgot George of Hanover. But the stupid elector did not forget

him. When good Queen Anne died, George came to England to fill the empty throne, and he forbade Handel to appear at court, as punishment for having deserted the court at Hanover.

One day the king went down the river in his barge of state. It was a gay scene: flags were in the air, and the beautiful boat was hailed on every hand by the craft on the smooth-flowing tide. A boat came after the barge, and some musicians in it struck up a barcarolle.

"Listen to the beautiful water-music?" said the royal oarsmen.

"Handel's!" each one whispered.

King George knew it was Handel's, but he was charmed in spite of his prejudices. He soon sent for Handel, and, that he might have no excuse for running away from the English court, he bestowed upon him an ample pension. The reconciliation of the King of England and the King of Music filled London with joy. Houses were illuminated and cannon were fired.

In the middle ages there had been miracle plays in the churches, similar to those still enacted at Ober Ammergau. They were a kind of scriptural object-teaching before books came into common use. These were in time followed by the opera and the oratorio. The operas related historic stories in music, and the oratorios presented sacred narratives and themes. Handel wrote operas and oratorios almost without number. They were very popular at the time they appeared, though most of them that were composed before he was fifty years of age are now forgotten.

Thirty years of musical composition was preparing him for the grandest works that ever came from a musician's pen. Handel would write only on the noblest themes. His love of ennobling music grew with years. At the age of fifty-four he produced *Saul*. The "Dead March in Saul" is still played on most solemn public occasions. It was soon followed by *Israel in Egypt*, with its terrific "hailstone chorus."

THE CHRISTMAS ORATORIO.

That was a notable day in Dublin, Ireland, when, on the 13th of April, 1742, at mid-day, a great crowd of people assembled to hear a new oratorio by Handel, called *The Messiah*. Handel loved the Irish, and he had written this oratorio expressly for them.

"Our prisons are filled with prisoners for debt," said the people of Dublin to the great composer. "Give us a concert, and let the proceeds go for the opening of prison doors."

Handel's heart was open to the appeal. He wrote in England *The Messiah* for the great occasion. During its composition his soul seemed filled with inspirations from on high. Once, when speaking of his frame of mind while writing the "Hallelujah Chorus," he said:

"I did think I saw all heaven before me, and the great God himself."

The triumph of the new oratorio was complete. Nothing so grand in music had ever been heard before. The ladies of Dublin agreed to leave their hoops at home to make more room in the hall. When King George II. heard the "Hallelujah Chorus," he forgot himself, and leaped to his feet. The audience followed the example of the king. It has ever since been the custom for audiences to rise and stand with bowed heads during the rendering of this stupendous and overwhelming production of musical art.

"You have given the audience an excellent *entertainment*," said a patronizing nobleman to Handel at the close of the first performance of *The Messiah* in London.

"My lord," said the grand old composer, "I should be sorry if I had only *entertained* them. I wish to *make them better*."

He became blind in his old age. He selected the organ for King's Chapel, Boston, after he had lost his sight. A boy used to lead him about and conduct him to his own organ, where he was still a king.

"I desire to die on Good Friday," he said, "for that was the day my Lord entered Paradise."

And so it came to pass.

On his monument in Westminster Abbey is inscribed:

"Died on Good Friday, April 14, 1759."

Judas Maccabeus is the favorite work of Handel with English choral societies; but *The Messiah* is the Christmas anthem of the world, and the highest attainment of musical art. "Comfort ye," "O thou that bringest good tidings," "His name shall be called wonderful," "He was despised," "I know that my Redeemer liveth," the sweet "Pastoral Symphony," recalling the angels' song on the plains of Bethlehem, and the overpowering and triumphant "Hallelujah Chorus," are strains for all time; the work, indeed, seems like the very advent of the Messiah himself into the world of song.

Washington Allston once said that "no one could become the greatest possible artist without living a pure life. Nature," he added, "does not reveal herself in her noblest aspects to one whose mind is clouded by any grossness of character." Handel was an upright man, and allowed no evil habits to hinder the highest success of his art. He did not write for money, and when he received large sums he gave much of it to the poor. His powers grew, and his subjects ever took a higher range, until, in the luminous twilight of a noble life, he produced a work that has the inspiration of a prophet, and that we can almost believe approaches the seraphic anthems.

WHAT TO DO ABOUT IT.

BILLY BUTTON. "How shall I make my old shabby trunk mother gave me to keep my clothes in, look better?" Soak off all express labels first, by laying wet cloths over them till they will peel off, glue down all torn places in the covering with the strongest glue, wash off any grease or mud with hot soda water, rinsing well, then paint with "edge blacking" from the shoemaker's, if it is a leather trunk, and varnish with the black varnish stove dealers use for grates. After it is dry, rub the nail heads bright with sandpaper, and polish with pumice stone in powder. Line the trunk with glazed cambric, put on with thick rye paste, well boiled, with a little glue in it.

LAURA. "Is there such a stitch in embroidery as 'captivity' stitch, and what gives it its name?" The captivity stitch known to embroiderers and lace fanciers is one of the forty or fifty different stitches used in needlework, and was devised by a captive lady of rank to beguile the tedious hours of imprisonment. It is much like double crochet, and is used in filling large outlines and heads of flowers.

POLYANTHUS. "I live at a distance from any art school, and would like to know what sort of clay is used in modelling, for I have often felt I should like to try to make figures in it." The modelling clays used in studios are prepared by mixing with finely ground and sifted sand or powdered stone ware. Nearly all clays need such mixture to make them work smoothly, and some kinds are so sticky and greasy that they cannot be handled at all. If you are near a brick-kiln, you will find the finer clays used in brick-making answer well. The best will be clays from a pottery, ready mixed. Blue clay, if not too sticky, can be mixed with very fine sifted sand, and works well. All clay is sticky when first wet, and should stand till it is like putty throughout, and then be well kneaded before moulding. The clays in different parts of the country differ in color, but no matter whether your clay is red, buff, yellow or gray, if it moulds well; warm reddish or pale drab shades only add to the richness of the work. Make the best of what comes to hand.

FLORENCE RIDLEY. "When was wall-paper first used? Was it in England?" No, my dear, that inventive people, the Chinese, first made wall-paper in square blocks, stamped to imitate embossed leather, and the Dutch imported such papers about the last of the sixteenth century. They began to copy the Chinese papers about 1640. 2. "Does air pass through the walls of a well-built house? My brother says it does, but I don't see how it can be, for houses are built to keep out the air." I am glad to see boys and girls ask such questions, it shows they think

about things of some use. Besides, it is a very good exercise for the mind to think at all, and not to take everything for granted. Brick, stone, plaster and wood — all building materials — are more or less porous, and the air passes through any surface not glazed or covered with fresh oil paint, so that a slight ventilation is all the time going on through the walls of our houses, which I suppose accounts for the fact that people are not oftener suffocated in close rooms. In a strong wind you can feel the faint current of air through a brick wall on the side from which the wind blows. Or you can blow out a candle through a Philadelphia brick or block of sandstone. But how many of you can tell me how this is done?

BILLY AND ROB. "Please tell us an easy way for boys to make some money." It is a little curious that over thirty letters are at hand asking the very same question; from which it is fair to conclude that a good many people are interested in the same subject. If I should tell at once all the ways I know of in which people are making money, I am afraid the publishers would have trouble in printing editions of the *WIDE AWAKE* for all who would want them. But I will promise each month to pick up some new way in which boys and girls can make money by their own labor. And I promise you they will be ways which mean work, and which will be of use to others. Not poor little tricks to ask people for their money in exchange for something of real no value, which is only a kind of beggary at best. Shall I tell you of a boy who wanted money very badly, and contracted with all the neighbors to sift and carry away all their coal ashes for the sake of the cinders? The folks were very glad to get rid of their coal ashes and the cinder heaps which disfigured the back yards, and Fred in his old coat and trousers wheeled away the ashes and sold the cinders at thirty-five cents a bushel, for which price folks were glad to buy them back again, sifted and washed, to keep fires over night. Some of the boys laughed and called him nicknames, but they didn't laugh so much when Fred bought his ten-dollar magic lantern with the proceeds of his screenings. Boys, there is money in bank for some of you — in the ash-bank — but how many of you will find it? Every town I know, and a good many homes I know, are decorated with ash-heaps along the sides of the streets, thrown into the green woody corners and on the banks of streams which ought to be fresh, clean and picturesque places, pleasant to view, instead of refuse-harbors and "free dumps" for the neighborhood. You might find some dollars for yourselves by making use of this rubbish, and earn the thanks of the neighborhood besides.

BELLA BARKER. How shall I kill worms at the

roots of my house-plants, without transplanting? Water with strong salt water poured over the earth, not touching the leaves, or with warm water having twenty-five drops of carbolic acid to the quart. Sea water kills worms in the ground or on plants, but injures delicate foliage.

JENNIE C. has whooping cough, and dislikes to stay at home from her classes, as she is working for a prize. Can I tell her anything to help her? Dr. Mott of New York says that sulphate of quinine, dissolved on the tongue, cured his children in seven days, but you must ask your doctor to prescribe the doses. Both whooping cough and diphtheria are relieved by breathing fumes of a tablespoonful of sulphur, burned on a hot shovel, held a yard or two from the patient, taking care not to choke him by too strong a whiff.

MINNIE wants some good selections for dramatic reading in school, Wednesday afternoons. Don't I remember turning over the leaves of the home library in search of the same readings, and finding Whittier, Bryant, "The English Poets," the "Ladies' Wreath" of poetry, and the English classics, all too poor to furnish one theme for the Wednesday afternoon exercises! You want something fresh, I suppose, and for that it is best to search the magazines and weekly papers. At the last commencement of Chauncey Hall school, one of the most admired in the country, where reading is made an accomplishment as it should be, most of the selections were from newspapers and magazines of the same year. Look through the *WIDE AWAKE*, *Harper*, and *Scribner's* department of Bric-a-brac, especially. Remember that pointed or humorous pieces are more liked in general than sentimental ones, but bear in mind that a passage not striking in itself, may be so read, with just, varied and natural expression, as to be interesting and affecting. If this advice isn't what you want, write again, saying how old you are, and I will make a list of special readings for you. It is very pleasant to have the requests come fluttering in, like November leaves.

EDNA AND JOE have caught the collecting fever, but the trouble is they don't know where to begin. "Do I advise them to collect postage stamps, minerals, cards, or samples of earths from different States, or to get up a case of birds' eggs. Isn't it a good plan to make collections?" Depends on what the collections are. Collecting for the sake of collecting, to have something somebody else has not, or to have a thousand or two uninteresting specimens is a nuisance, not worth the while except as it keeps one from petty larceny, backbiting, arson and such depraved tricks. Frequently, with postage stamps, when not made a means toward the study of history

and geography, no one cares less for the collection in a short time than its owner. Cases of little bits of stones and vials of earth from all the States in the Union, are too trivial to illustrate anything—as the range of minerals in each State is too wide to be represented in any such way. I have spent a year in wondering at the Cincinnati teacher, who could deliberately set his boys collecting birds' eggs and stuffed birds, and teach them to rob nests and kill happy creatures with blow guns or pocket pistols, to fill scholars' cases. Except for large scientific collections, it is most unnecessary cruelty to kill birds and rob their nests to gratify a collector's vanity. Rather, while young, make the beginnings of collections which will grow in interest through life. Collections of autumn leaves of singular beauty, or leaves of rare trees, mounted singly, have always an interest; sections of different woods, not less than six inches square, are of lively interest while collecting, and can be made into a parquet mantle, or window seat, when complete. But the most valuable of all are collections of pictures, large and small, wood or steel engravings, good, bad and indifferent, if the subject is interesting. As they gather you assort them by classes, heads of public men and women, old worthies, foreign and ancient costumes, noted towns, great events, animals, etc. You do not know what interest such a collection has. For instance, a boy may have all the presidents, all the modern inventors, large guns, war-ships, maps of the seats of modern war, and heroes of each war, cut from the weekly papers, to which the arrangement gives double value, and such a scrap-book is always excellent for reference. Take old school-books and interleave them with such pictures as you find illustrating the subjects. This is a favorite occupation of wealthy collectors, but you can have just as much fun out of it. Collections of figured chintzes and calicoes to show the patterns of each season will be highly interesting the older they grow. Collections of initial letters, or end-pieces from old books are useful to artists, and so are all specimens of ornamented borders or headings. Collect insects if you like, for you can kill them instantly and painlessly with ether. Collect flowers for herbariums, and locks of hair, if you like, not sentimentally, but to show the endless variety of fineness and shades on human heads. Collect samples of as many different shades of each color in silk, kid, muslin, or any fine stuff as you can, and get the fashionable name for each. Such collections educate one, and have an interest for manufacturers and artists in after life, while they always have a money value not dependent on the caprice of the moment.

THE WISE BLACKBIRD.

THE WIDE AWAKE POST-OFFICE.

THE Delivery window of the WIDE AWAKE Post-office is open once more. The Post-mistress welcomes back the crowd of familiar faces. There is time and room now for all the letters. The publishers have had to build the magazine bigger to let in the children with all their belongings; and in the general building on and around, the Post-mistress has secured a nook for her own.

There have been several little epistles waiting for a long time, and while she is at the Delivery window the Post-mistress wishes to say a few words about the Post-office.

She wants everybody to know that the WIDE AWAKE Post-office is established for all the young folks of this country and other countries, whether they are subscribers to the magazine or not. Any one may send letters to it, and receive answers through it. *It is to be known as a General Exchange of young folks' knowledge, news, needs and opinions.*

For instance: any boy may tell all other boys what book he has been reading, and what he thinks of it, and ask them about other books which he means to read. Any boy may tell all other boys about the sports they have in his neighborhood or school, or about the work he has to do, and give his opinion about it and the tools he uses and their faults, and how he thinks they might be bettered. He may criticise his school-books, too, and his course of study; and he will find that teachers and school-book makers get hold of his letters somehow, and go to thinking about them.

Any girl, too, may do each and all of these things in her letters to the WIDE AWAKE Post-office. And she may exchange her favorite cooking receipts with the other young cooks, and she may say exactly what she thinks about fashions and usages. In this way the customs in different places can be compared.

Any girl may tell all the other girls of any new fancy-work, or home decoration, or domestic comfort which she has invented or is learning to make. Don't you see that in this way each of you may drop little pleasures and benefits into thousands of other lives and other homes?

Both boys and girls are urged to put in their letters all the odd or remarkable traits they see in their pets or hear about animals in their vicinity. Those who

travel, either in their own land or abroad, are invited to write about the new things they see, and the manners and objects which seem odd or picturesque.

Are you not all interested in Ernie's letter from Honolulu about the Mauna Loa volcano? And would you not like to know the little girl six years old who can write cunning little rhymes? And don't you think those young New York city girls have good times in their up-stairs kitchen? These two little cooks are being educated in the best ways belonging to both books and travel; but their mother means also to fit them to be intelligent mistresses of a home. Cannot some other young cook tell them how to make good chocolate creams?

The Post-mistress believes that every boy and girl knows something to-day, or may to-morrow, which the others would like to hear. She is aware, too, that it is easier to do things and to talk about them, than it is to write about them. But this is because you are accustomed to talk and to do, and not to write. Do not let this stand in your way. Go right about it, and try to put upon paper what you have seen, or what you think about a thing, and ask in a straightforward way what you would like some one to tell you. The difficult task is done, and the next letter will be much easier to write.

Those who wish to ask questions of somebody much wiser than persons of their own years should address their letters thus: THE WISE BLACKBIRD, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

Those who are taking the Reading Course of the C. Y. F. R. U., and would like to ask questions about any article in that course, may address their letters to the author of that article, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

Those who wish their letters to be published in the WIDE AWAKE Post-office should direct their letters thus: EDITORS OF WIDE AWAKE, 32 Franklin St. Boston, Mass.

And now the Post-mistress hopes, as she wishes all the young folks a "Merry Christmas" and a "Happy New Year," that they will find that the WIDE AWAKE POST-OFFICE is meant for them and their interests; and if it is not a helpful institution it will be because they do not write letters about the matters in which they really are interested.

THE WIDE AWAKE POST-OFFICE.

ROXBURY, Nov. 24.

DEAR WIDE AWAKE:

I am a little girl six years old. I live in Frederickton, New Brunswick. I am spending the winter in Boston. I have a baby sister three years old, named Nellie, and a little baby sister named Louise. I composed some verses about Nellie.

NELLIE'S FOOTIES.

Nellie was a baby,
Just three years old;
She kicked the *clo'es* all off her,
And got her footies cold.

'Long there came a doggie —
Just a little pup —
He took the bed-clo'es in his mouth,
And covered Nellie up.

Dear WIDE AWAKE, he really did do that!

ANNIE B. LUGREN.

BOSTON, Nov. 1st.

MY DEAR WIDE AWAKE:

I want to tell you about our little dog. His name is Rodger. He is a rat-terrier; that means he catches mice.

One morning, while grandma was gone away, Rodger caught a mouse and brought it right up to me. I was just carrying the teapot from the stove to the table. I jumped upon a chair in the middle of the room, because I am afraid of a mouse. Rodger played with the mouse awhile right close to me; but when I thought it was dead, I went to step off the chair, and Rodger tried to bite me. He thought I wanted to take his mouse away from him.

He kept me on the chair a long time. Every time I tried to get down, he would bark at me. I scolded him, but he would not go away. At last, I just poured a little of the hot tea down on him and he ran away pretty quick. Then I got down and went in the other room. When I came back again the mouse was creeping slowly away. Rodger had not killed it. I called him again to catch the mouse, but he would not come, for I guess he thought I wanted to give him some more hot tea; so I took the broom and got upon a chair and pushed the mouse out doors, and the kitty got it.

THE LITTLE AUNTIE.

HONOLULU, OAHU, Nov. 21st.

DEAR WIDE AWAKE: You are an old friend, but I have never written to you, still I enjoy all of the letters and stories very much. Perhaps you would like to hear from a little Honolulu boy, and know what we have out here. Well, we have baseball, cricket, and so on; picnics up in the mountains and down to the beach.

I will tell you about last Saturday: Mamma took the carriage, my sister and us boys, and we went down to Waikiki — that is our bathing place here in Honolulu. Some friends went with us. After getting lunch ready on the table in the cottage, we all went in the water — mamma and all — and for about an hour we had splendid fun. Willie and I know how to swim. We all went out, and a wave would come and throw us up on the beach. I tell you we were hungry enough for lunch when we were through. There were some natives out on their surf-boards; they carry their boards out, and when they meet a wave they ride in on it.

I want to tell you now about the great eruption of 1880 on Mauna Loa: as I write it is sending up a stream of fire one thousand feet high. There are three streams of lava coursing down its sides; one of the streams of red hot lava is about fifteen or twenty miles long towards Mauna Kea. It looks like a great torchlight procession. The people of Hilo are not afraid, but are watching the grand sight. They can see two of the streams from there, and can pick up a pin in their rooms at night because the glare is so strong and bright.

One of the streams goes toward Kaw. This week we will hear more about it. I am glad I don't live on Hawaii. We have had no earthquakes on this island yet, and I hope we won't have any.

ERNIE.

NEW YORK, March 20th.

DEAR WIDE AWAKE:

I want to tell you about our cooking-stove — our own cooking-stove, sister's and mine — and the fun we have with it. It stands about a foot and a half from the floor, is nearly a foot wide and a foot and a half long. It has a place for warming dishes, quite a good-sized oven, a boiler, and a little iron bracket at its back, where you can put anything you want to keep warm.

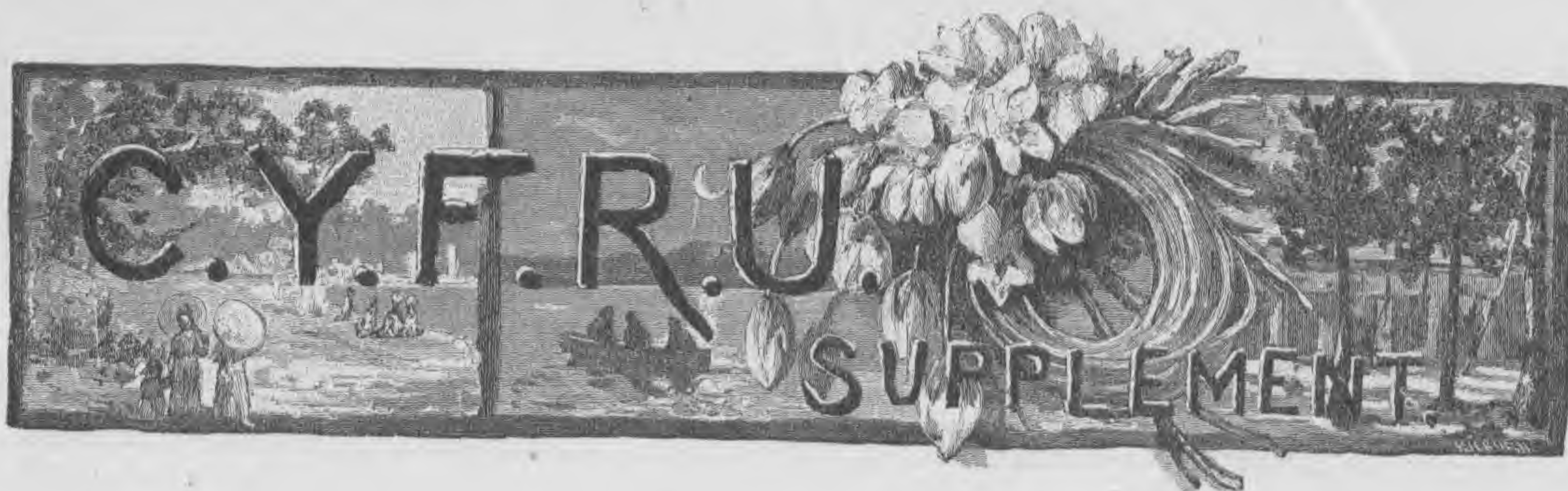
Besides the stove, we have a cupboard with two shelves crammed full of everything that is needful for cooking, the dearest little spice-box, and a small porcelain-lined kettle in which we make molasses candy, stew oysters or anything like that. We have cake-pans, tin measures from a pint down, jars for sugar, butter, etc., and a keg in which we keep our flour; also a pair of the smallest scales you ever saw, with three weights — two ounces, one ounce and a half ounce. A regular old-fashioned settle (in the inside of which we keep our dish towels and use the top for a moulding board) completes the furniture.

We have had cooking parties besides our private fun; at one of them we made biscuits and had very good success with them. Once we made some plum pies; there was too much juice in them, and during the baking process it boiled over; and when we went to take them out of the oven we found that they were stuck fast to the floor; however, we got them out after burning our fingers a little, and they were really quite good. At another time one of my aunts came to spend the night with us, and sister and I determined to do a little cooking in her honor; so we stewed some oysters, made some cake and a pie, and in the evening after supper we came up-stairs and had quite a little party. We have made chocolate creams several times, but never had very good luck with them — they are too soft and sugary. If any of the WIDE AWAKE girls could tell us how to remedy this, we should be very much obliged. We have made butter-scotch several times this winter, and have always had very good success, except once, when it had either too much butter or was made of the wrong kind of molasses, for it was so soft and sticky that one could hardly eat it; butter scotch is good only when it is very crisp.

Your constant reader,

MARY R. WEST.

P. S. We have the stove in a room in the third story, the cupboard, settle, etc., in a small room off. Mamma thought this best, so that we could have our cooking parties without disturbing the cook and her kitchen.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

V.—THE HAMMER OF THE GENTILES.

BY ANNA LAURENS DAWES.

THERE is a story of a great peril and a great deliverance hidden away in history, which people have almost forgotten. Of all the struggles for freedom since the world began, it is one of the most exciting and important; yet it seems like a riddle to ask about the Hammer of the Gentiles.

The story begins in the streets of Jerusalem, nearly two hundred years before Christ. Cruel soldiers are persecuting women and children and old men, murdering and selling for slaves the young and strong, offering every kind of insult to the sacred places and the Holy Temple. Then, soon, the scene changes to the mountains among a crowd of fugitives who have left lands and home and fled for their lives, preferring exile to breaking the laws of Moses and disobeying their God. Still the soldiers pursue them, and it is their own king who gives the order for their destruction.

And now the story has a hero. He is the son of a venerable priest, Mattathias, and he is one of five brothers, all priests and all great men, but very different. John, the quiet eldest brother, sorrows most for the desecrated Temple; Simon talks of the glories and hopes of the Hebrew people, now almost driven from the face of the earth; Jonathan thinks of foreign nations who might help them, while Judas and Eleazar are fierce to fight for their country. But already it is easy to see which will be among the world's heroes, known to history as "The Hammer."

Those were the days when king Antiochus IV. ruled over Palestine and almost the whole East. One hundred and fifty years before, when Alexander the Great died, the wide Grecian Empire was broken into smaller kingdoms. Prosperous Egypt with its wonderful civilization made one; Greece itself was the least of them, and already was scarcely anything more than a province of Rome; but in the East, the kings

of Syria had built up a great and flourishing and magnificent empire, with its capitol at beautiful Antioch. King Antiochus was a very great king and a very furious one, so that he was sometimes called Epiphanes, "the Brilliant," and sometimes Epimanes, "the Mad." He thought his great dominions could be governed more easily if all the different peoples had the same religion, and consequently determined that the whole country should be made as much like Greece as possible.

This was what caused so much trouble in Palestine. Great disturbances arose, so that at last Antiochus, in a fit of rage, sent a general named Appollonius with soldiers to force the Israelites to worship heathen gods. These soldiers broke down the splendid courts of the Temple, sacrificed on its altar the swine which are a particular abomination to the Jew, and poured swine's broth over the beautiful copies of the law. Worse than this, they tortured and killed multitudes who were ready to die rather than give up their religion.

This is what makes the story something more than merely interesting. The priests of Egypt, and the philosophers of the East, and the wise Socrates in Athens, had tried in vain to teach their countrymen of one great God who is Creator and Ruler of the world, and who asks goodness and purity of His creatures; but the Jews knew Him, worshipped Him, and believed that to obey Him is better than life. For just as we have learned law from the Romans, and still study art and literature in the schools of Greece, so our religion has come to us through the Hebrews. The Bible is the history of their nation, and from among them came Jesus. So when the King of Syria tried to destroy this nation and this religion, the struggle by which brave men saved both for the world is a very important part of history.

Mattathias and his remarkable sons opened the contest. After they were driven out of Jerusalem they retired to Modin, a little city in the beautiful Judæan uplands, near Hebron. Here their family

had been great for so many generations that their very name, "Asmoneans," meant *Magnates*, and always it had been a family of priests sworn to believe in God and help others to worship Him. They could not forget this, and as they read in the book of Daniel (which was first known in those trying times) the stories of men who would not deny the Lord Jehovah, though tempted and persecuted, and the records of the visions of better times to come, they remembered that to be great is to have much influence over others.

The Syrian officer who planted a heathen altar in Modin did not forget this either, and begged Mattathias to offer a sacrifice thereon, that the rest of the people might follow the example. The indignation of the old man arose at such a suggestion, and grew until it knew no bounds. When a Jew who wanted to get favor with the officer crowded up to the altar bringing an offering, Mattathias could endure it no longer. He cried out, "Though all the nations that are under the king's dominion obey him, and fall away every one from the religion of their fathers, and give consent to his commandments, yet will I and my sons and my brethren walk in the covenant of our fathers."

Thereupon he and his sons fell upon the officer and killed him, tore down the altar, and then fled for their lives to the mountains, gathering together there numbers who were like-minded.

The Syrians followed hard after, and, mindful of past experiences, attacked one company on the Sabbath, only to be received in silence by men who could die rather than disobey their law. Then Mattathias, as wise as he was brave, declared that the Sabbath was for man's highest need, and that, fighting as they were for their nation and their God, they might defend themselves on that day.

His followers soon became a large and powerful band up in the mountains, tearing down many heathen altars, restoring Jewish rites, and delivering numbers of their persecuted brethren.

Mattathias lived a year only after this; but dying he bequeathed the righteous warfare to his sons. The struggle became the particular inheritance of Judas, who began then to be called Maccabeus, which means "The Hammer." Familiar with the mountains all his life, he struck blow after blow, sudden and heavy, upon the Syrian hosts, who did not know the country and were much confused by the steep roads and rough passes.

Young Judas was the idol of his army. "Mighty and strong from his youth up, there was a cheerfulness diffused through the whole army when he appeared. His countrymen delighted to remember his stately appearance as of an ancient giant, when he fastened on his breastplate, or tightened his military sash around him, or waved his protecting sword over the camp of his faithful followers." Like a lion for courage, he was tender and gentle "to such as were ready to perish;" and though a great general, he remembered that he was also a priest. "For our lives

and our laws," was his own motto and the war-cry of his army; and he never forgot that "the victory of battle standeth not in the multitude of a host, but strength cometh from heaven." All the liberty in the world has come from men with such courage and trust. The famous saying that "God is on the side of the heaviest battalions" comes from tyrants like Napoleon, who delighted to use it, or like the Roman emperors of whom it was first spoken.

In the first two years Judas had won three great battles. Near Samaria he had destroyed a large army, and killed Appollonius himself. He took the sword of the Syrian general, and with it fought all his life, doubtless often gaining courage as he looked at it and thought of his first battle and the miserable end of the man who had so persecuted the Jews. At Beth Horon in the mountains, he utterly destroyed another great host, and killed their leader, the governor of the whole province.

By this time the Syrians had begun to have some respect for the Jewish army, and the third time they sent to Emmaus nearly fifty thousand men under three of their greatest generals. Perhaps Judas never showed the strength of his character more than at this time. Although he had but six thousand men to oppose this multitude, he did not hesitate to follow the law of Moses, and proclaim that all who were lately married, or had just bought property, and all others who were afraid, should leave the army! Just half his force deserted him, and against the host of his enemies he could array but a poorly armed band of three thousand men; but they were brave men who had fasted and prayed, and who believed it was better to die in battle than to see the calamities of their people and sanctuary.

Partly by stratagem, and partly by the splendid courage of his small troop, Judas scattered the great army of the Syrians, who left behind much gold and silver, and blue silk and purple of the sea. Well might the happy Israelites chant their national anthem of thanksgiving, the one hundred and thirty-sixth psalm.

But Jerusalem was still in heathen hands; and the next year King Antiochus sent for its defence still another enormous army under the governor of all Syria. Once more the Syrian host was utterly defeated, this time at Beth Zur, about thirty miles south of the city; and Judas and his victorious followers marched into Jerusalem with songs and shouts. His first care was the Temple. He pulled down the hateful Syrian altars, rooted up the shrubs that filled its courts, rebuilt its walls and hung them with the splendid spoil of the heathen, and with pious care rededicated the altars to Jehovah. With great rejoicings and solemn ceremonies the Israelites set up again the worship for which they had endured so much and fought so bravely; and then for the first time celebrated with illuminations and festive dances the beautiful "Feast of Lights," which was described in this magazine a few months ago.

Judæa was not yet safe and at peace, however; for now Judas and his brethren had to meet and conquer the neighboring tribes; and when in 164 B. C., King Antiochus died leaving two sons who quarrelled over the throne, there were fresh battles to fight with the armies of the new king, also called Antiochus. This time it was determined to crush once and forever the Jewish army.

Down the Jordan valley towards Jerusalem marched the Syrian host. It was a splendid army of more than one hundred and twenty thousand men. The horsemen were in chain armor, with helmets of polished brass, and "when the sun shone upon the shields of brass and gold, the mountains glistened therewith, and shined like lamps of fire." Most ter-

the fight, and Jerusalem was given up. Though the people were protected by a treaty, the Syrian general broke it as soon as he was inside the walls, and it seemed for a little while as if all was lost.

Before the year was out, however, the throne of Syria was in new hands, and against King Demetrius the Maccabees (as Judas and his brothers were called) set out on a campaign which proved sometimes disastrous, sometimes successful.

Once Nicanor, a great Syrian, met Judas in a council, and liked him so much that they became close friends. During this friendship occurred almost the only quiet time in the whole life of Judas. It is pleasant to think of him enjoying the comfort and happiness of the home he made for himself in these



DOWN THE JORDAN VALLEY MARCHED THE SYRIAN HOST.

rible of all, in the midst tramped magnificently caparisoned elephants, each with its Indian driver, carrying huge black towers full of archers, and roused to fury with the blood of grapes and of mulberries!

The armies met near Beth Zur again. The Jews fought like tigers. The brave Eleazar, thinking that the largest elephant carried the king, determined, like Curtius or Horatius, that his life was a small price to pay for the salvation of a whole people. He ran under the dreadful creature, stabbed it furiously, and was crushed as the huge beast tottered and fell. It was this deed that made so honorable his curious title of the "Beast-sticker."

Notwithstanding all their daring, the Jews had to give way for the first time when Judas himself led

days, bearing with dignity his short-lived honors as High Priest, and constantly delighting in the society of the congenial Nicanor.

Such a friendship could not last, and circumstances quickly brought it to an end; for soon after, we find this very general again fighting the Jews most fiercely, but in vain, and at last lying slain among his defeated soldiers.

Judas was something more than a brave warrior; he was also a thoughtful ruler. He had heard much of a wonderful people called Romans who were fast conquering the whole world, and to whom the mighty Syrians themselves paid tribute. These Romans, Judas had heard, were ruled by a senate chosen from among themselves, and by "a captain changed every

year." He had heard too that the favor of this powerful people set up thrones, and their anger overthrew kingdoms; so he determined to send an embassy asking their aid.

For many reasons the Romans gladly granted their protection; and though Judas himself did not profit by it, his country did for a time; and thus began the connection afterwards so disastrous to the Jews.

Meanwhile, in the year 161 B. C., so many quarrels had arisen among the Jewish people themselves that when a fresh army came down from the Syrian king under a general named Bacchides, there were only eight hundred men who were willing to follow Judas to battle. Still his courage did not fail; and rallying the little band, he led them forth with these brave words: "If our time be come, let us die manfully for our brethren, and let us not stain our honor;" and it was given him thus to die; for before the day was over, the battle was lost, and among the slain was the great and wise and able leader.

There was cause for the lamentation that filled Israel. There had been no such leader since David; there was never such another. With a handful of followers, Judas Maccabeus had defied a mighty kingdom, had rescued a whole land, had rebuilt a nation, and had restored a dying religion. All this he had done by his wisdom and skill and military ability, by his high purpose and his sublime trust in a God who cares for his people. And to-day when men wish to honor a hero, they greet him with the triumphant music in which the great composer, Handel, afterward celebrated the deeds of this very Judas:

*"See, the conquering hero comes!
Sound the trumpet, beat the drums,
Sports prepare, the laurels bring,
Songs of triumph to him sing!"*

After his death the struggle went on. Jonathan, called "the Crafty," the youngest of the Maccabees, gained by able management, as well as by military skill and great courage, more than had been lost; and he was soon reigning as High Priest and "Friend of the King" over his whole country. It was a very warlike reign, however, and soon came to an end.

Simon, the last brother of this wonderful Maccabean family, succeeded in 143 B. C. to the power over the Hebrew people. He was, on the whole, probably the most remarkable of this family who fought so well for national liberty. In a few great battles he subdued three fortresses that none of his brothers had been able to secure, and thereby made himself master of Judæa. He ruled with a wise and firm hand; peace and plenty filled the whole land. The young princes rode forth in the splendid train of embassies to foreign courts, and dreamt of a day when the Jewish people should be rulers of the earth. The Hebrew maidens hurried to their latticed windows as the gorgeous trains of foreign kings filled the streets of Jerusalem going up to the stately palace of the High Priest. The hum of buying and selling rose all day, and the money, for the first time in their history, was Jewish money marked with the name of a Jewish ruler. Old men talked together at the street corners of the new wealth of the country, and nodded with satisfaction that no more tribute was paid to Syria. And in quiet chambers priests and scholars gathered up their sacred writings into almost the very form in which to-day we read the Old Testament. Since the magnificent reign of Solomon, it was the day of Israel's greatest glory and greatest development. The nation, with the priceless treasure of its religion, had at last been saved for the world, by the courage and devotion of Judas Maccabeus and his brethren.

WAYS TO DO THINGS.

V.—HOW TO MAKE A GOOD FLY.

BY THOMAS WILLIAMSON.

FLY-FISHING is poetry; ordinary angling is prose. The latter looks to the catch; the former to skill shown in the capture. There is more sport in hooking and playing one single bass with a light pliant fly-rod, than in dragging in a dozen by mere muscular force. To cast a fly lightly to a chosen spot, to note instantly the swell indicative of a "rise," to strike at once, but deliberately, to keep your rod bent, your line taut, and your fish in the

water long enough to exhaust him, all require judgment, skill and self-control.

But after you have put up your rod for the season, you may still extract pleasure from mending your tackle, putting reel and rod in order, and last, but not least, in making a supply of artificial flies for future fishing.

The articles necessary for making flies are hooks, silk, white wax, silkworm-gut, tinsel-feather fibres—dubbing for the bodies of fur, wool, silk or feathers—hackles for legs, and larger feathers for wings.

First, get a good hook. The good hook is as sharp as a needle, and the barbed end points

nearly exactly in a line with the end of the shank; not inside of the "line of pull," *a, b* (see fig. 1), lest the point come not in contact with the fish; nor too



FIG. 1.

far out, lest the barb be pulled flatwise against the fish's mouth,

and thus not pierce it readily; nor exactly in the line of pull, for, though in that case it would pierce anything between the point and end of shank, it might slip out without touching the unclosed jaws



FIG. 2.

before the jaw had passed the line of pull. A point like *x* would be bad, so would one like *z*; but one like *y* would be about right. Now take the hook between the forefinger and thumb of your left hand, the shank pointing to your right, as in fig. 2. Lay the end of a strong piece of silk, well waxed, on the hook near the bend, and, holding it firmly with your forefinger and thumb, wrap it tightly around the hook nearly to the end of the shank, as in fig. 3.



FIG. 3.

Now coil a piece of silkworm-gut that has been soaked ten or fifteen minutes, and lay it on the hook with the coil to your right, and wrap it with your silk carefully and firmly down to the bend of the hook, cutting off the silkworm-gut a little before you get to the bend, so as to cover it well with the wrap, like fig. 4, at first; it looks like fig. 5 after wrapping. Now take two of the fibres of a peacock's feather, technically known as peacock's herl, and a piece of silver or gilt tinsel; lay the tinsel on near the bend, and then, after two wraps of the silk, lay on the two pieces of peacock's herl, which must be fastened by two or three wraps, as in fig. 6. Now fasten in with a turn or two of the silk the dubbing for the body of the fly. Supposing it to be peacock's herl, three or four pieces will do, as in fig. 7. Then take a hackle-feather, shaped like fig. 8, from the neck or rump of a gamecock or brown leghorn, and fasten in the point with three wraps of your silk, as in fig. 9.

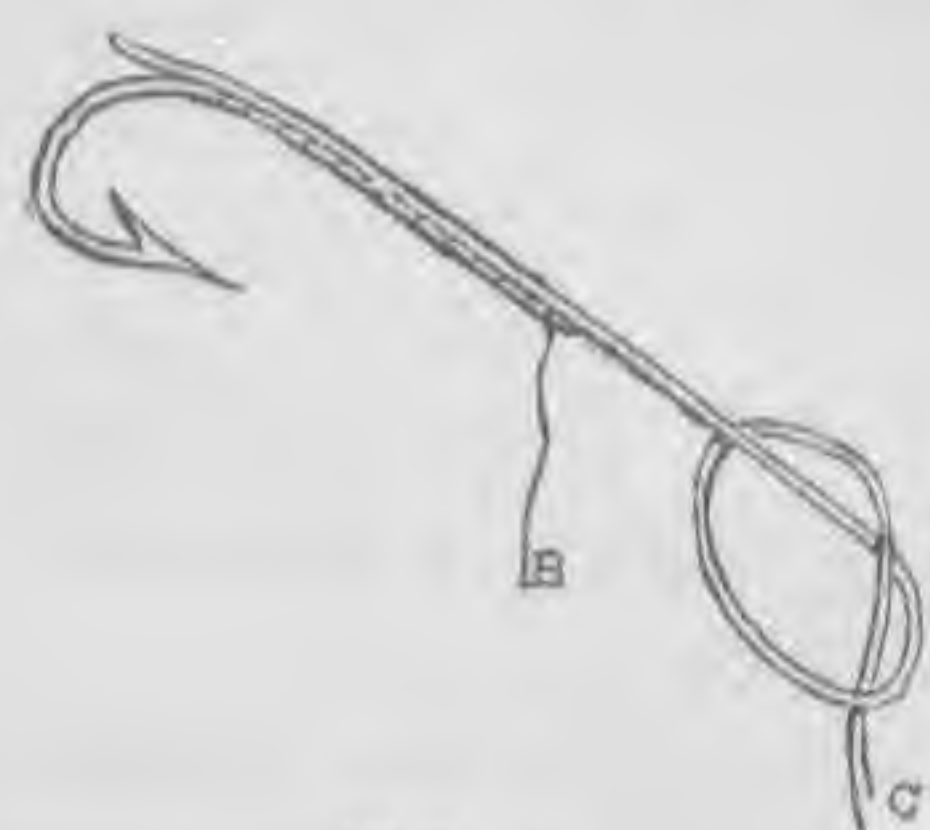


FIG. 4.

You have now a hook, *a*, wrapped with well-waxed silk, *b*, with a piece of silkworm-gut, *c*, a piece of tinsel, *d*, two tail-pieces, *e, e*, dubbing for body, *f, f, f*, and hackle for legs, *g*.

Now for the wings. Strip off or cut from a

hawk's feather, like fig. 10, a clipping or two, like fig. 11, and fold it into a convenient width, and clip the ends square, like fig. 12. Lay them on

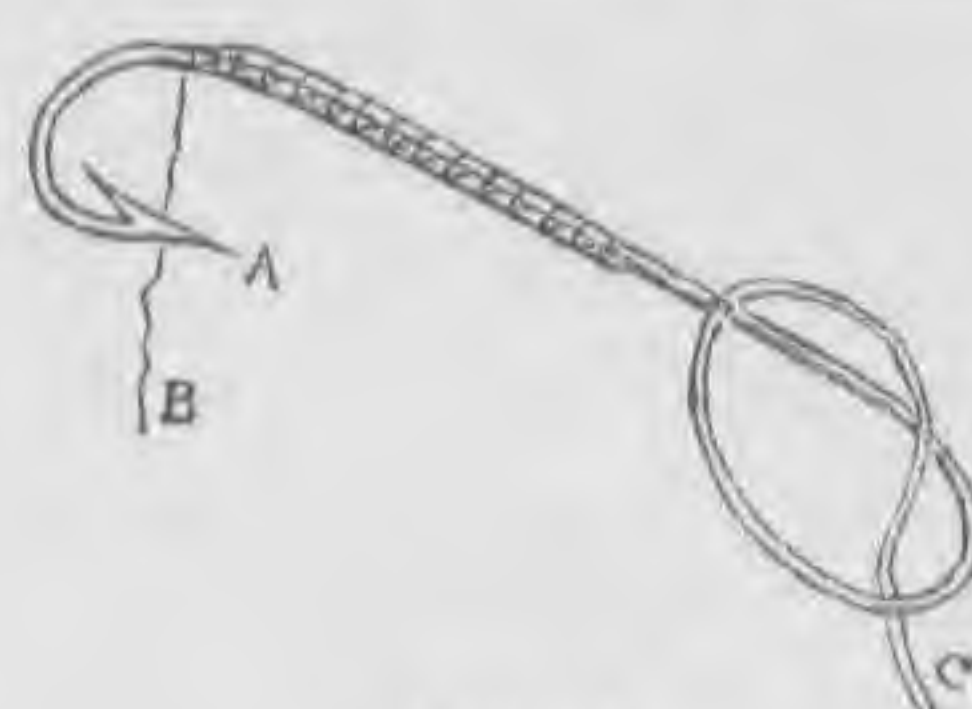


FIG. 5.

the shank of the hook, butts to the left, points to the right, and fasten with three or four firm wraps, as in fig. 13. Now draw the silk under the wing, between them and the hook, to hold them temporarily, and going back to the bend of the hook, wind the dubbing,



FIG. 6.

f, f, f, around the hook over and to your right as far

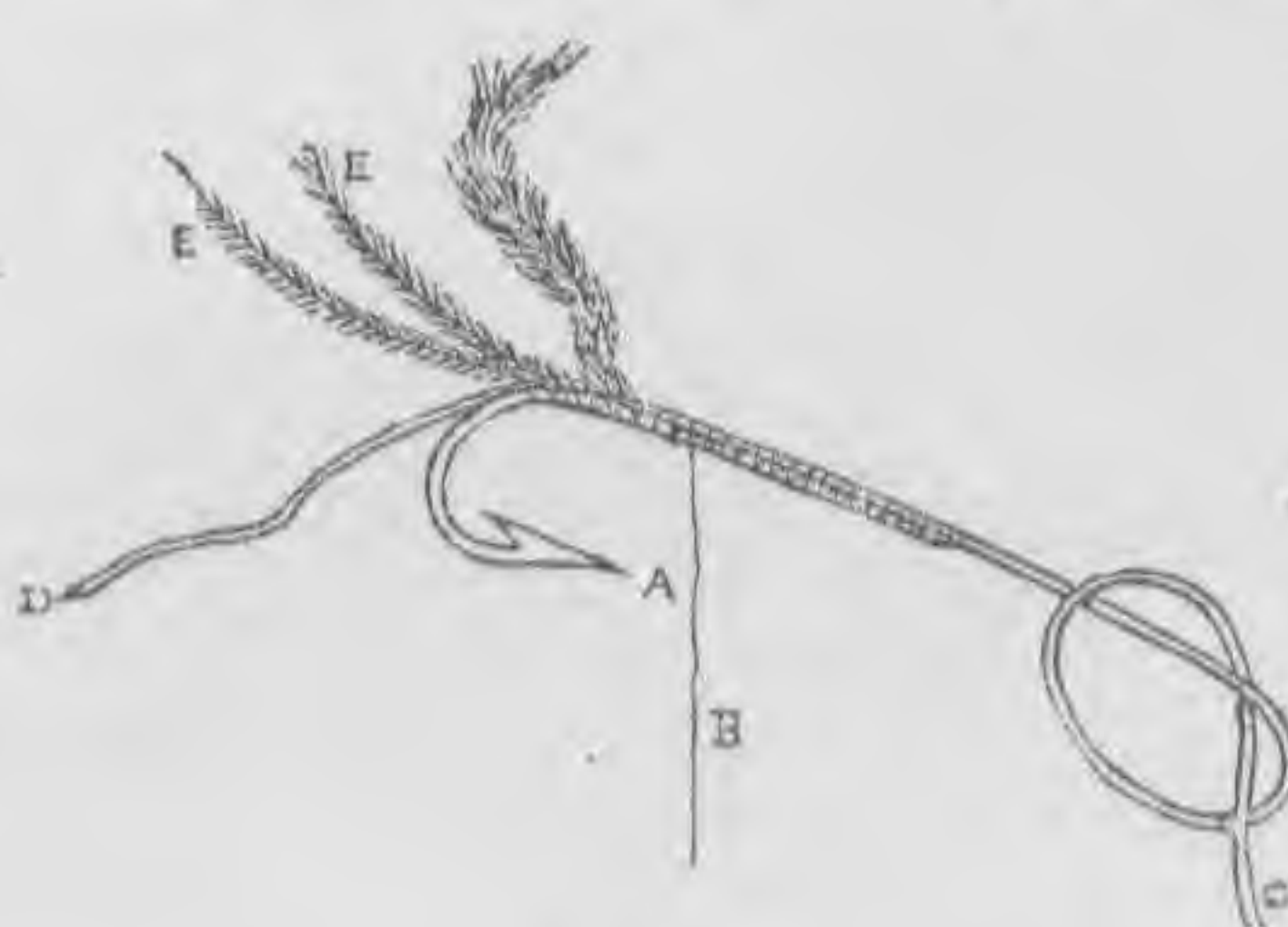


FIG. 7.

as the root of the wings, leaving the hackle out; fasten the dubbing with one or two wraps, taking the silk from under the wing to do the wrapping. Next wind your tinsel *d* up to the same point and fasten in same way. Now wind your hackle towards the right, twisting the quill as you wind to keep the fibres sticking outwards, and picking out any fibres that get entangled with a dubbing-needle (a needle stuck in a piece of soft pine, like fig. 14) and fasten. Now turn back the wings with the points to your left, towards the bend of the hook; fasten back with one or two wraps, passing the silk through an opening between the wings made by the dubbing-needle, to separate them. Finish by making two loose wraps, like fig. 15; then draw the silk through them tightly, like fig. 16. Touch this fastening with a drop of gum-shellac, and it will not slip or be affected by water. Gum-shellac dissolved in alcohol can be gotten at any drug-store, and should be rather thick.



FIG. 8.

Your fly will now look like fig. 17.

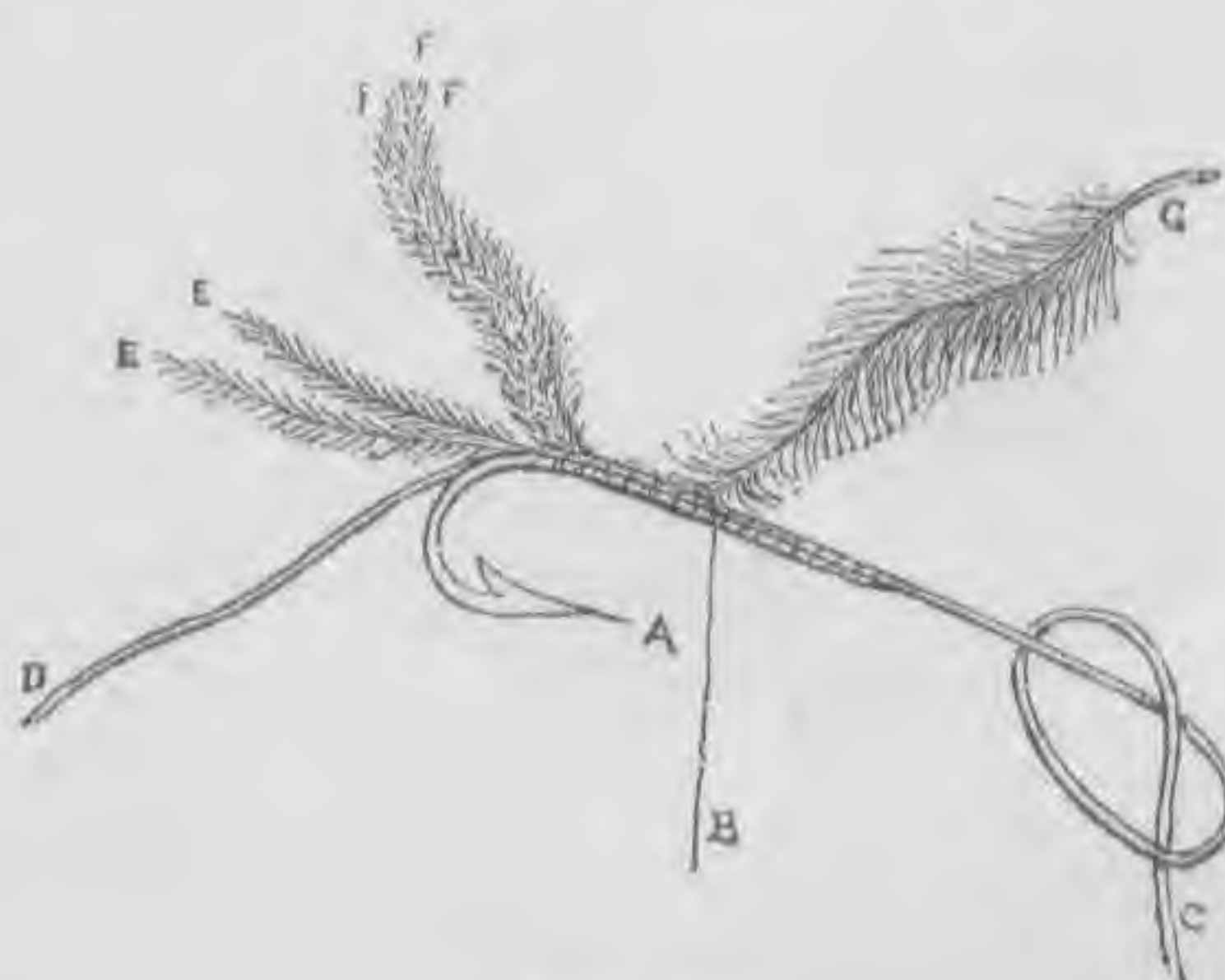


FIG. 9.

Your flies should be *rough* imitations of any water-flies you see in your tramps, in *color* and *number* of



FIG. 10.

parts; outrageously colored flies will be taken by black bass, who seem to bite at anything that has the merest apologies for body, wings and legs. All game-fish bite readily at a simple hackle wound



FIG. 11.



FIG. 12.

from bend to shank around any attractively colored body in the form of a caterpillar; a good one for black bass is made

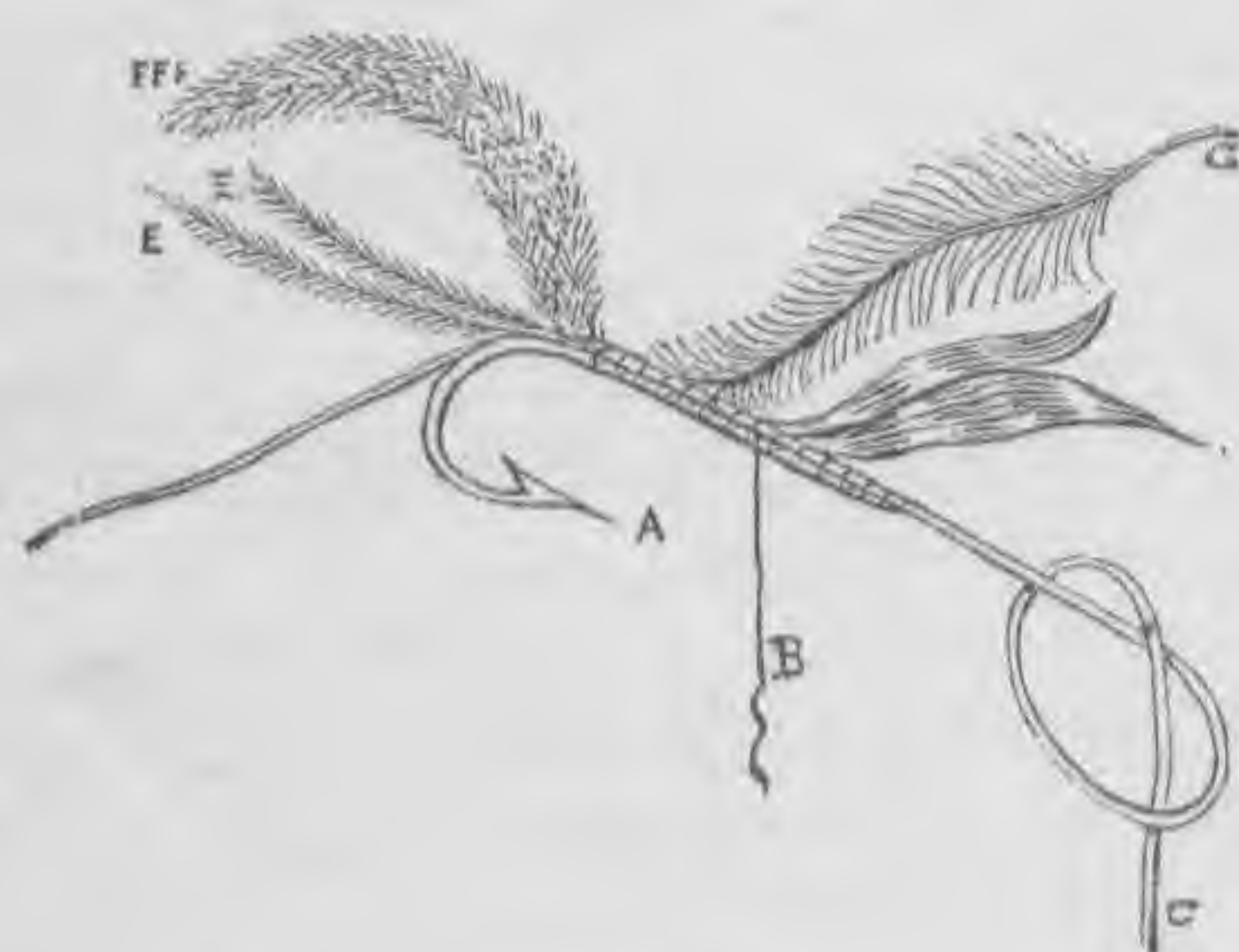


FIG. 13.

with one reddish-brown hackle and two black ones; and a body of peacock's herl wrapped with green or red silk is a good imitation of a caterpillar common here (in Virginia) in November.

Anglers also make something having no counterpart in nature



FIG. 14.

— a winged hackle — by tying the hackle in a winged fly back from the bend to the end of shank—a sort of winged caterpillar. Some fish no



FIG. 15.

doubt, are affected by it as by a caterpillar; others as by a fly; others just strike out of curiosity, as a kitten plays with a ball. Should you buy your tackle, buy from tackle-makers who angle occasionally themselves. They know more "wrinkles" in their "line" in a day than ordinary makers learn in a year. Some of the best houses in Boston, New York and Baltimore derive their most valuable specialties from the presence of one or more actual anglers in the firms.



FIG. 16.

Water-flies have generally, like the May fly, fig. 18, a body, wings, legs, and tail-like appendages, technically, so you will not be far wrong if you make your fly have those parts, though fish bite at flies with

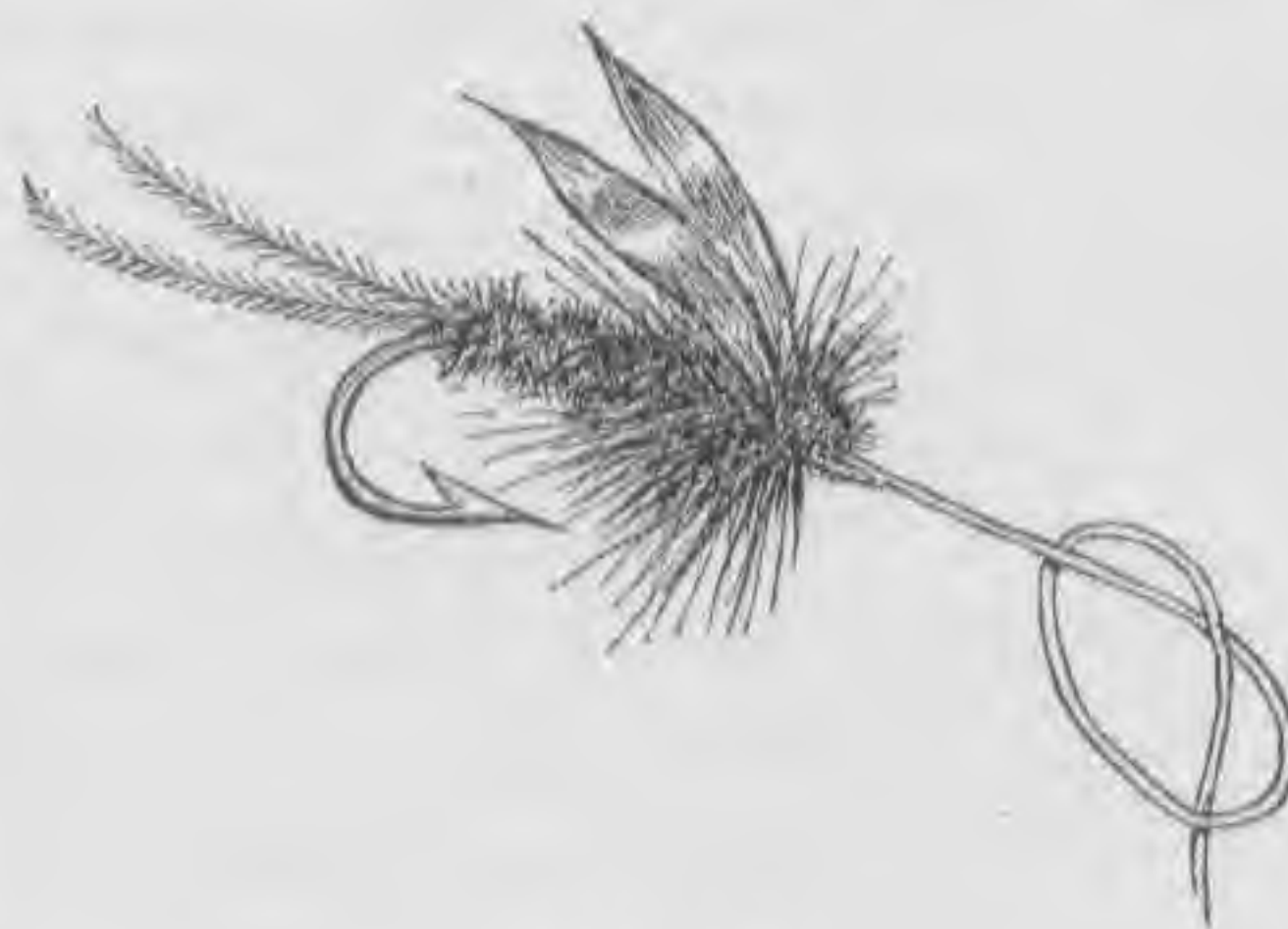


FIG. 17.

less than these enumerated. For black bass, greens, yellows and reds seem the best colors, though white and black are often used. I like, however, flies that are combinations of bright and sober tints. A favorite fly with me has a body of peacock's herl brown; wings, yellowish-white feather of chicken-hawk with discolorations on them: legs, a reddish-brown hackle from a game-cock or brown leghorn cock; tail-pieces, two fibres, like wings. I put a red streak in each wing. I call it the "academy," after a school once under my care.



FIG. 18.

OLD OCEAN.

. BY ERNEST INGERSOLL.

III.

EARLY VOYAGES, AND THE SOUTH POLE.

I SUPPOSE that by the discovery of how to get a fire, the first savage men were able to make the longest of all the steps toward civilization. Next to this, the tilling of the soil has been of most advantage; but surely the third means of growth out

of barbarism has been the knowledge of navigation. As we have no history of a time when men did not possess a fire, so we cannot go back to when they did not have boats. Yet it is easy to return to an age when all use of boats was confined to inland waters, or to ocean coasts where headlands were always in sight as landmarks. As wars and trade called for larger enterprises, and knowledge grew, the boatmen became more venturesome, until, finally, a

wonderful invention enabled sailors to leave the land behind, and become real mariners, pursuing a steadily straight course for weeks together across the untracked sea.

How well the early Chinese knew the oriental seas, and that the Polynesians could steer from island to island for thousands of miles, we can only guess; for the first seafaring people of whom we have any accurate history are the Phœnicians, who were at the head of the world about 500 years B. C. Their capital city was Tyre, on the Syrian coast; and when we first hear of them, their ships traded east and west from England to India. As long ago as 600 years B. C., Necho, a wise king of Egypt, employed Phœnician sailors to explore the eastern coast of Africa, and they started down the Red sea. Two years later they came sailing into the Mediterranean through the straits of Gibraltar, showing that they had rounded the Cape of Good Hope. A century or so later the princes of the second great Phœnician city, Carthage (now Tunis), sent Hamio, with sixty ships, to explore the Atlantic coast of Africa; but he seems to have got only about as far as Sierra Leone. Then in 320 B. C., an expedition from Massilia (where Marseilles in France now stands) set out northward under another Carthaginian captain, Pytheas. It sailed along the coasts of Spain and France, clear around Great Britain, and back home, and is famous for its discovery of Ultima Thule (now generally thought to be Shetland, or else a part of Norway), then considered the northern extremity of the earth. The next year Pytheas penetrated the Baltic.

Meanwhile, exploration in the east had been pushed by the conquests of Alexander the Great, but chiefly on land, so that all the coasts beyond nearer India, remained unknown for hundreds of years later; though the fact that the earth was a globe was understood two centuries before Christ; and the first geographer, Eratosthenes, suggested that by sailing westward new continents and islands might be discovered beyond the "utmost purple rim" of the Atlantic. This is about all that the famous Ptolemy knew in the second century after Christ.

The conquests of Rome, Constantinople, and the Mohammedans, extended a knowledge of Asia; but in Europe more than six hundred years went by after Ptolemy, before any progress was made. This was that dark time called the Middle Ages, which followed the weakening and breaking up of the Roman empire. The first signs of its brightening came from Gothland, on the cold shores of the North sea, where the Norman Vikings ruled, not only the most enterprising and refined race in western Europe, but all-powerful on the sea. Dreaded as these rough old Norman sea-kings were, they were not wholly pirates and marauders; and from them the proudest Englishmen and Americans trace their descent. Well, these Normans, with their friends the Norsemen, braving the icy terrors of the wild seas in their

small ships, by the middle of the ninth century had sailed past North Cape, and all along the coast of Lapland, knew all about Scotland and the Scottish Isles, had discovered the Faroe Islands (A. D. 861) and settled them, and in 874 planted colonies in Iceland. Thence old Red Eric—who has atoned for his crimes by his valor—bore away westward, until the bleak cliffs of Greenland loomed before him, and landed upon the continent of America five hundred years before Columbus started from Cartegena. The colonies thus established in Greenland not only kept up communication with Iceland and Europe, but made new explorations for themselves. They sailed around into Baffin's bay, going well towards its northern extremity; and before the year 1000, Byorni, a son of one of old Red Eric's comrades, led an expedition southward past Labrador, around Nova Scotia, and away south of Cape Cod to a pleasant district called Vinland, where a Norse village existed for many years. Just where this was situated we don't know, but it is thought that the old tower at Newport, Rhode Island, is a relic of those early days. Very soon after, fishermen began coming from Norway, Jutland (Denmark), and the Briton coast of France, to the banks of Newfoundland; and it is a curious fact, that the Indian name in Newfoundland for the cod is not an Indian word at all, but a corrupted French word.

For five hundred years these Norman colonies flourished, and the Newfoundland banks were annually fished upon by Europeans, who found their way back and forth by the help of the stars, I suppose. But toward the end of the fourteenth century catastrophe came. Fleeing from destruction, a Tartar chief with a few followers marched to Kamtchatka, crossed Behring's straits after much fighting, collected an army of Arctic Indians, and made his way clear across from Alaska to Labrador, where he arrived in 1399. There he heard of the Norman towns in southern Greenland, rich in things he needed. Not minding the wrong of it, he built boats enough to carry a crowd of his savages across, attacked the villages then feeble with the devastation of a plague, killed all the people and left the towns in ruins. This was the end of all colonies in Greenland; for just then their people at home were too busy in conquering England and fighting the Gauls to think of America, and the far western shore was forgotten by all but a few students.

But about this time the world was waking from its long stupidity. Commerce was reviving, learning began to flourish, and kings were willing to let their subjects plan and carry out naval enterprises. Just in this ripe time came the help which enabled navigation to take the greatest step forward it ever did or ever will take. It appears that while the western world was under the cloud of the Dark Ages, the Chinese discovered—no one knows just how or where—that a bit of iron properly magnetized will invariably turn so as to point toward the north, no

matter in what part of the world the test is made. Europe learned of this astonishing invention first at Naples about 1307, and the value of it was seen at once, for it gave the sailor a sure indication of where north lay when he was out of sight of land and all the stars were hidden in storm-clouds. Knowing where north was, he could easily find east or west; but to aid him, these, and three hundred and sixty intermediate points called "degrees," were marked in a circle on a small sheet of paper, over which the magnetized needle was so fixed as to swing freely; and this arrangement, so simple yet accomplishing so much, made the *mariner's compass*.

At this time nearly all the commerce of Europe was with India and China. The overland route was long, expensive and dangerous. The water route was equally so, for vessels had to stick close to land, and thus were often on a perilous lea shore. The first need of the world was the discovery of some straighter and quicker road to the east. But upon this errand, Venice took the lead, and sent Zeni to the westward as early as 1380, but he could not get past North America, and so returned. Then Portugal came forward under the brilliant leadership of Prince Henry the Navigator, who, by the way, was half an Englishman, since his mother was Philippa of Lancaster. It was Prince Henry's ambition to find the sea-path to the east, and he enlisted the help of the best navigators of every country. Thus urged, Portugal's ships sailed further and further southward, seeking to get by Africa, until in 1486 Dias fought his way through the storms that guarded the Cape of Good Hope, and opened the route for Vasco de Gama to push straight across the Indian ocean to Calcutta in 1497. The sea-path to India was found at last, and the extension of commerce to China and the great eastern islands quickly followed; but poor Prince Henry was dead long before.

Portugal was so much occupied with these and other ocean surveys, and in governing her new eastern possessions, that she would not listen to the plans of an ambitious young sailor from Genoa named Christopher Columbus. He had been reading all the travels he could get hold of, and diligently studying all that was known of geography and navigation. He had heard of the voyages of the Vikings to Greenland and Vinland, of the fishing trips to Newfoundland and of the researches of Zeni. He had faith in them, and thought if he went further south he might either get past Vinland and sail straight on to China and eastern India or else he would come upon an unknown continent. Either of these results would be glorious. But it was long before he could get any government to support the attempt. How, finally, he persuaded Spain to fit out his small ships; how bravely he kept on his way across the rough Atlantic with instruments which now we should think utterly worthless, since the quadrant and sextant were then unknown; how, in 1492, the Bahamas were reached; and how in subsequent voyages more and more of the West Indies were surveyed, until in 1498 he set foot upon the

mainland of South America — are already familiar to you.

Europe was quick to profit by the discovery of the western continent, and sent scores of expeditions to take possession of anything not yet claimed by Spain; but the Spaniards kept in the lead, and rapidly explored not only the Brazilian coast, but crossed over and set their standards in the surf of the Pacific. Thence they extended their expeditions from Panama northward as far as Vancouver's Island, and southward to Chili.

All this time the Dutch and Portuguese were busy exploring the region about Spitzbergen and in the White sea, and possessing themselves of the East Indies, while the English and French sent voyagers to the rediscovered shores of what is now Canada and New England, until within a very few years from Columbus' voyage the whole Atlantic and much of the Pacific coast of both Americas was fairly well known.

Of all these expeditions, however, the most brilliant was that of Magellan, a native of Portugal, who commanded an expedition of three ships for the king of Spain. Steering straight for Brazil, he worked his way southward to see where the end of the continent was, and finally entered a gulf, the southern shore of which he called Terra del Fuego, because he saw so many fires there. Sailing into this gulf, he was delighted presently to emerge into a new ocean on the other side. Shaping his course northwest, at the end of three long months Magellan reached the East Indies, and knew that he had been around the world for the first time in history.

Following him with an expedition in 1577, Sir Francis Drake of England was driven by a storm west of Terra del Fuego to its southern point, and so discovered that the Atlantic and Pacific were joined there. Then he sailed northward, entered the harbor where San Francisco now stands, and then crossed the Pacific, homeward bound. Thirty-eight years later Cape Horn was rounded for the first time by the Dutch Captain Van Schonter, who named it after his native town in Holland. Meanwhile the same nation had caught sight of Australia, and in 1642 Captain Abel Jansen Tasman left Batavia on a voyage southward, which was destined to prove very important indeed, for it added to the map Southern Australia, Van Diemen's land, New Zealand, and much information concerning New Guinea and many small islands. Beyond this, the voyages of the famous English Captain Cook taught us most about the south seas where Cook finally lost his life.

During this time accident more than design had contributed some knowledge of the ocean about the south pole, although steady explorations were being conducted in the Arctic seas, to which I shall devote the whole of my next chapter.

More than two hundred and eighty years ago the existence of islands far to the southward of any continents became known to navigators, who were driven thither by bad weather, and little by little was added to the map of this desolate region; but it was not

until 1774 that any one went into that terrible Antarctic sea for the express purpose of a survey. This man was the intrepid Captain Cook, and though he went a third of the way around the globe in his efforts to find an entrance through the icy barrier, he could never penetrate beyond 71° south latitude, only about equal to North Cape, or the town of Upernavik, in the Arctic region. Later captains did little better, until 1841, when Ross, in his ships "Erebus" and "Terror," skirted the edge of the thick ice that everywhere clothed the land, though it was midsummer, and finally reached the base of the southernmost land yet known on the globe—a magnificent mountain chain stretching away to the south from latitude $77^{\circ} 5'$. Some years before this, Captain Parry, an Arctic explorer, gave the name of "Ross" to the

know of the globe within the Antarctic circle, and we are likely never to learn much more. In a latitude much further from the pole than where, in the north, vegetation is abundant, and men and animals live all the year round, the severity of the Antarctic climate cuts off all life, and constantly seals the water under a cap of ice. The only land appears to be volcanic; and the soil, or, rather, the structure of the islands, is often found to consist of nothing but alternate layers of ashes and ice, that have succeeded one another season after season. Most of the coast is unapproachable on account of an unbroken belt of cliffs of perpetual ice; and it is only in the outermost islands that even coarse grass, a few lichens, or simple seaweeds can be found; for the volcanic heights within are utterly destitute of



ERUPTION OF MT. EREBUS.

most northerly land then known; this southward end of the world Ross now called "Parry Land," and so returned a compliment in a way it is not often possible for men to do.

The most conspicuous point of all this range of polar mountains was a lofty volcano—Mt. Erebus—12,400 feet high, and covered with everlasting glaciers and snow from its lonely crest to the tempestuous water's edge. It was in active eruption, and Ross tries to tell of the splendor of its action when the wide, glistening waste of snow and the deep blue of the ocean were lighted by the column of fire and smoke hurled thousands of feet skyward from its crater; but who can picture the grandeur of such a scene!

Meagre as this information is, it is about all we

any vegetation whatever, and the highest noonday heat of summer is only a little above the freezing-point.

Why this intense cold and dreadful desolation exists so much further from the pole in the southern than in the northern hemisphere, I need hardly explain to you; for you will recall that in the north the continents are so broad as to form almost an unbroken wall about the narrow polar sea, confining its cold waters, warming the air by wide radiation, and guiding the heated flood of the Gulf Stream straight into the chilling northern sea. In the Antarctic region, on the other hand, an immense breadth of water is broken by no land of any account; there is and can be no great warm current

to temper the sea-water, and along hundreds of miles of glacial cliffs icebergs are daily breaking off and drifting far northward to chill both water and air beyond the limit of animal endurance. Terra del Fuego stands as a type of all that is cold and desolate, yet it is no nearer to its pole than the Highlands of Scotland are to the northern "hub," and considerably more distant than the great city of St. Petersburg, the capital of "all the Russias."

Of course, then, you would not expect land-animals to be found in this vast iceland capping the southern axis of the globe; yet of sea mammals there is a large variety, including several whales, dolphins and their kin, and various sorts of seals, small and large—notably the huge sea-elephant, now becoming very rare. All these feed on fishes, which are abundant there, as also are the humbler orders

of animal life. Then, too, the Antarctic islands are the resort of enormous flocks of sea-birds: ducks, albatrosses, penguins, petrels, etc., all different from the arctic species. Some of these birds are giants of their kind, as, for instance, the great "break-bones" petrel, whose powerful beak is four and one-half inches long. It ordinarily lives on fishes or on floating carrion, but now and then it attacks living birds, even those as large as a loon, killing them by repeated blows on the head. Feeble mates of its own species, even, are thus struck down and torn to pieces. As for the albatross, it is only rivalled by the condor in size and strength; while the big, stupid penguins seem far more fishy than bird-like, scarcely ever visiting the land except to lay their eggs and hatch their young.

Next time—the other end of the world!

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

IV.

THE FINNY KIND.



A SUBJECT OF SPECULATION TO THE KITTEN.

ISHES, of course. But are you not going out of your way to include them?"

Well, yes; and no.

In some cases they are dwellers in the door-yard. Suppose I should remind you of the belief current among country people (and often acted upon), that if they have a trout living in the well the water will be pure. He will keep it free from the small fry of winged and wiggling things which are so ready to get in.

within the distance that a trout can spring! He will dart further than the length of his own body up out of the water to seize it.

As this notion is so prevalent, I presume there is many a well of crystal water where some of these spotted beauties from the mountain brooks have their home.

I know the history of the trout in one such well. Their chronology reaches back forty years. From time to time in that period one has been put in—perhaps half a dozen in all. The first may be there yet; for fish live to an incredible age. Is it, I wonder, because they have such a meagre allowance of brains, and are so bloodless?—because they are not troubled with nerves, and have no mechanism for worrying?

It was thought among things worth "making note of," that a pike was supposed to have lived to be two hundred and sixty years old. No such knowledge comes amiss to a naturalist, even if other people do think it unimportant.

To think that such creatures should survive many generations of human beings! There has lately been an announcement in a scientific journal of the death of "Fanny, a very aged carp in the ponds at Fontainebleau, well known to the people of Paris." She had become very gray; and no wonder, for she was said to have been hatched in the reign of Francis I.

Somewhere—shall we say about 1520—when Henry VIII. was King of England, and Charles V. Emperor of Germany, and Leo X. Pope of Rome,

Woe be to the luckless midge or gnat that ventures

when Martin Luther was alive, and Cortes and Pizarro — away, away back there in history — this fish which died last summer was alive! It is enough to take one's breath away!

I don't ask you to take my word for it. But you might hunt up incidents about the longevity of fishes, and you would see that there was no occasion for doubting it.

Turtles and tortoises too, while you are about it. Archbishop Laud had in his garden one of the latter, which at the age of one hundred and twenty-eight died of neglect. What a pity that there had not been somebody to have taken good care of him, and left him as a legacy to other good care; and so on, from century to century, in a kind of self-perpetuating guardianship!

As for the trout in that well, only two have died; and their "taking off" was untimely, wholly accidental. The first was found in the morning in the wash-boiler, which had been filled the night before. "A pretty kettle of fish," literally, for he was a handsome salmon trout, with that rich warm tint underneath, all dappled over his sides with red and gold.

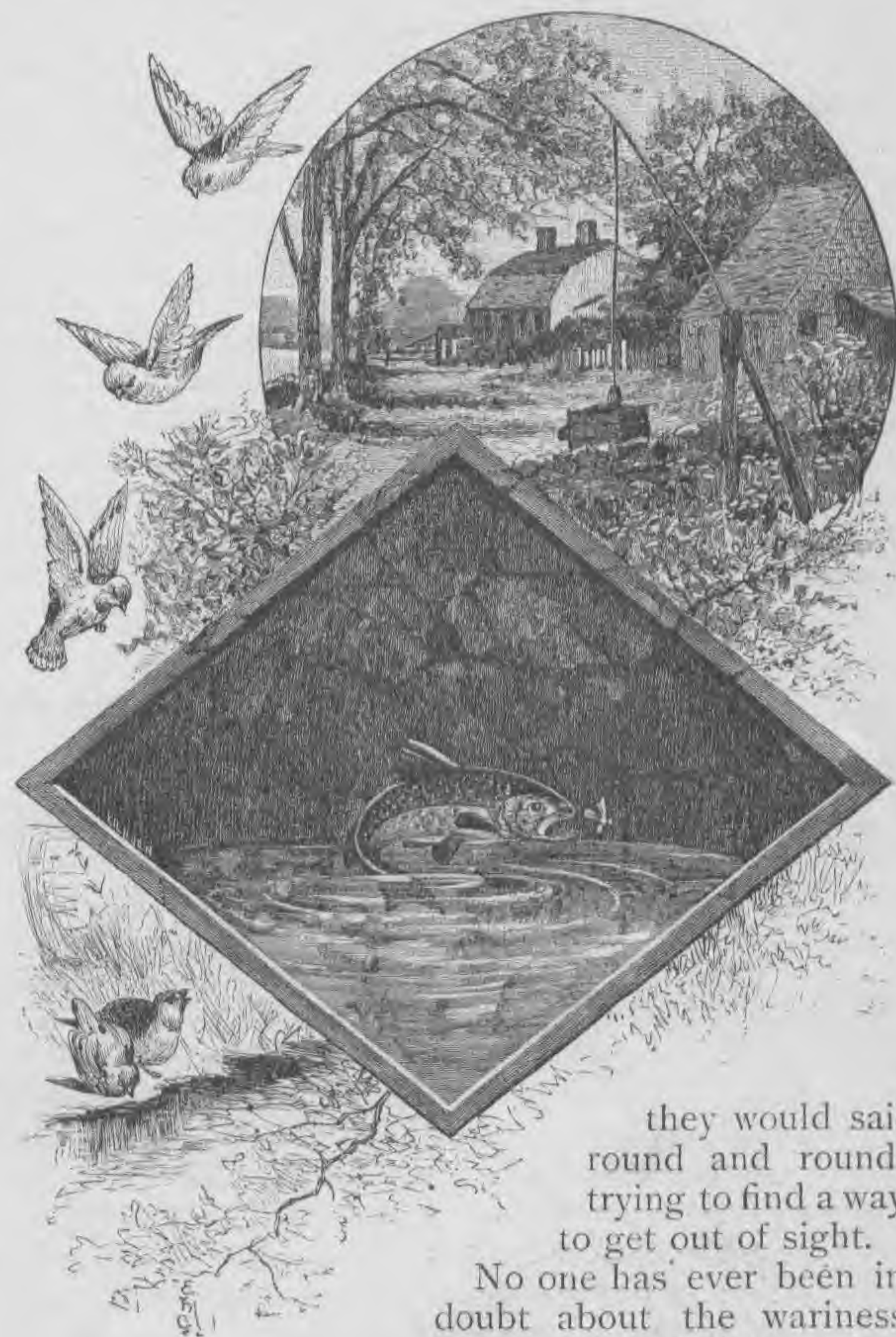
Several times a trout came up in the bucket, but, after being well looked at and admired, was lowered to the bottom again. It was an episode in his life which was more likely than not to happen, and after it had once, was always expected to again. The wonder was that, in the thousands of pailfuls drawn, the trout should have escaped, even for a single day, one of those ascensions — which must have been to them what going up in a balloon would be to us.

The last which came up was discovered in season, in the water pail. He was very large. There was the making of a good breakfast (for one) in him; but who so bold as to dare propose such a thing as eating that household door-yard trout — that trout of the well? The mere mention of it would have called forth such protests as the old Egyptians made if the life of one of their sacred cats was threatened.

These unintentional excursionists had always been returned to the place where they belonged, by being lowered in the bucket, which was left sunken awhile to give the occupant a chance to swim out, which he was glad enough to do. This one, however, was too thoroughly frightened or bewildered. He would not leave the bucket. Every time a pail of water was wanted, up he came; so the desperate expedient was resorted to of pouring him down. But the concussion was too much for him; he was soon drawn up dead.

They were usually scared at seeing a human face gazing right at them, and nearer than ever face came before. As if it was not enough to have taken that unpremeditated journey up; right out of darkness, too, into a glare of light! And oh, with what a horrible, dissonant, terrific accompaniment had the transit been made! — that indescribable sound, the most excruciating that ever was heard; hideous combination of screech, squeak, shriek and groan, as of a spirit in torment, from that old windlass which

seemed in the mortal agony of being rent asunder! And then the rush of waters and splash into a pail! They looked and acted as if they did not know what to make of it, and when discovered were apt to be lying motionless on the bottom. If startled,



IN THE OLD WELL.

they would sail round and round, trying to find a way to get out of sight.

No one has ever been in doubt about the wariness and agility of fishes; but the question has many times been asked about their intelligence and emotional capacity. Do they know their friends?

This is answered very conclusively by certain experiences which persons have had with pet fish. A shiner (a red minnow) has now been kept three years by the owner in her parlor. She has him in a glass globe of which he is the only inhabitant. Another shiner was put in for company, but seems to have been looked upon as an interloper, and was assassinated. Then two small perch, which were devoured; since that, the solitary has been left to himself.

He has a bed of river sand, a few shells for ornament, and a calla-lily growing there to keep the water pure. He seems to enjoy life, and appreciates the doings of a kitten, to whom he is the subject of a good deal of speculation. She establishes herself on the rim of the globe, eyes him curiously, and then

delicately ventures her paw in that direction. The fish seems at first not to see her, then slips around and gives it a nip, as much as to say that he is prepared for such a contingency.

He knows the voice of his mistress, and when she approaches, calling him, and shaking her finger, he will come to the surface and swim towards her, wiggling all over with delight, shaking himself from side to side just as a dog will when he is so glad to see you that he is ready to wag his tail off. The shiner even seems actually to try his best to grin; and one cannot help believing that there is a small amount of intelligence and affection somewhere in his fishy anatomy.

It is a very sensitive little body. When the water is changed it must be done gradually, or the shock is too much; and it must come from the same place. If anything goes wrong with him, he is, in a literal sense, "upset;" he goes over on his side; his equilibrium is for the time being destroyed; he can't properly be said to be "all unstrung," since he is without any nerves to speak of, but he is completely unbalanced.

His diet consists of angle-worms and shreds of beef, fed to him three times a week. But, like many fish, he will take almost anything that is offered. This politeness or greediness had nearly caused his death. All at once the water was found to be milky, and the shiner was over on his side; and he grew so transparent that his poor little backbone showed through the skin. Then two small boys, frightened at the state of things, eased their consciences by confessing to having fed him with sugared cinnamon buds. The shiner had to be watched, dieted and carefully tended after that, and had quite a process of recovery before he was himself again.

Very likely many of you have read a recent account of a Cape Cod lady who has fish, turtles and eels which she has tamed. The story is true; and all has not been told.

She lives near a small pond, and for over three years has been in the habit of going out once or twice a day to feed them. At first she was very private about it; but last summer it became known, and she had many visitors.

She splashes the water with her hands as a signal, and instantly the surface of the pond is all alive with the hurrying, eager, voracious creatures: six turtles, about twenty eels, and hundreds of large shiners—a singular company, sailing, swimming, squirming, crowding close upon one another, and all so tame that they will eat out of her hands.

She takes the turtles directly out of the water, gives them a piece of meat and puts them back; and after they have eaten it, they come, stretching out their elastic, black, india-rubber-like heads for more. The eels are of various sizes, from one to three feet in length. One is a monster, weighing from six to seven pounds; and for him she has a name she calls him by—Quinn.

As for the shiners, it must be pleasant to feed them; they are pretty, agile, graceful things. With what perfection, what luxury of motion, they glide about! No finny or winged creature moves with greater ease; circling like a skater on the ice, or a swallow up on high.

And a turtle—he is so comical in his crusty shell, which is now like a pavilion over him, now a box with which he has retired and shut himself, and now his house, which he carries as a pedlar does his pack, always looking, too, as if he was just on the point of being crushed by it.

But an eel—he is too slippery and sinuous. The visitors were at first shy of touching the eels; though after a while, this lady says she noticed they did not mind playing with them. She herself seems to care more about them and pets them more than she does the fishes or turtles. Quinn is too heavy to be lifted out of the water, but she has him perform a feat like a circus horse going through a hoop. She places her arms out in a circle, and he will pass through, gliding back and forth repeatedly.

The next in size to Quinn is so very gentle that he will come and lie on the surface for her to take him; but he is so heavy that she is obliged to use both hands to lift him out. The smaller ones are as ready to be taken, and her little girl six years old handles them freely.

When cold weather comes on, they go into the mud for the winter; but if there is a very warm day their mistress goes out and splashes the water to try and call them up. They will put their heads out of the mud and look at her, but that is all; as much as to say, "The water is too cold; we cannot come to you this winter, but we will next spring."

The salmon trout of the mountain brooks is supposed to be one of the daintiest, nicest of fish about what he eats. But I lately heard a story which quite lowered him in my estimation, and made me change my mind about him.

The owners of a pleasant farmstead who have running through their orchard and door-yard a delightful little brook, bethought themselves of a plan to have a fish-pond of their own set right in the green turf. So a basin was dug out, walled in, and all completed, with a gravelled walk around it and a tiny wharf on the house side. Then the stream which came babbling and sparkling from the hills, filled it to the brim before it went dancing on across the meadow where the bobolinks sung, on its riverward way.

The pond was stocked with about two hundred trout, put in at different times, having been dipped up in a pail from the deep holes into which these fish always go when the water is low. They soon became accustomed to the people of the house, and were very tame; and there was a great deal of pleasure in sitting and watching them, especially on the summer afternoons just about sunset, when the air would be full of midges hovering over the water, and the sharp-eyed trout, all on the alert, would

dart out dripping and shining, and seize their prey.

There were no special pets, but all came at the call, and all answered to the general name of "Trouty." They were always "on exhibition," as you might say, if they were hungry. The mistress would go to the wharf, provided with a piece of meat and a knife — often it was salt pork out of the barrel. At the first sound of her voice, on they came in a shoal, and she could trail them all around the pond. As she walked the narrow gravelled path, they swept along as near the water's edge as they could get, leaving a flashing wake behind them.

By this time a family of ducks had arrived, and had come tumbling in, and were rapidly swimming the way the fishes led. They, too, scented something good; they, too, were pork-eaters. The place had to be cleared of them, or the fishes would have stood small chance; and then the feeding began; and the beautiful spotted trout would plash about in their eagerness, and leap far up to catch a shred that was being tossed to them.

Once the largest of all the number, in some vaulting performance, when no one was by to see the result, landed out on the wharf, where he perished miserably, the only one out of the two hundred that was ever known to die; though they all disappeared from the pond after a year or two, having either been angled for most successfully by some poaching sportsman, or eaten by the minks.

But the story is this: The gentleman of the house one day tossed into the pond, just out of curiosity, to see how the trout would act, a snake which he had

killed on the wharf. In an instant all was commotion. Every fish was on the spring after it; but the largest one, weighing about a pound and a half, seized the snake by the tail, and started off with it as fast as he could go. All the others went too, tugging to get a hold somewhere; but not one of them would touch the head.

You would have supposed it the greatest dainty that had ever been offered to them. The big one held fast, and kept on round and round the pond, and the hundred and ninety-nine — if that was the exact number — after him; until, to use the words of the person who saw it all, "they gave it up as a bad job." Then the captor began swallowing the repulsive thing, tail first.

But naturally there must come a moment when he could swallow no more. Then, instead of snapping his jaws together, and relinquishing what he could not eat, he was so selfish that he kept his hold lest the others should have a share. He did not know what to do with it. He was in as great a dilemma as the Primrose family when they had the eight portraits painted together on a canvass "too large to be got through any of the doors."

Finally, however, he "rose to the occasion;" and for the three days that passed before he could succeed in forcing it all down his throat, that trout lived, and swam, and wore the hours away, with the snake, or what was left of it, protruding from his mouth.

"I kept watch of him," said this eye-witness, "for I was so curious to know."

It is a good deal of a fish story. And to have to believe such a thing about a trout!

HEALTH AND STRENGTH PAPERS.

V. HOW SHE WAS DRESSED.

BY MARY J. SAFFORD, M. D.

IT was on one of the bleakest mornings in December that my little patient and her mother came to my office for a third consultation.

The little girl looked blue where there should have been a mantling red. They had been delayed by detaining street-cars, and, as the mother expressed it, they were pierced to the bone by the searching raw wind. Women nearly always make the unwise choice when it is a question of sitting ten minutes in a detained car or walking a half-mile. A man rarely sits and shivers thus. The consideration of warmth naturally came uppermost as I undressed my little patient to examine her clothing, as I had promised.

"I'm sure you will find her all right as regards

dress," said her mother, confidently. "Still I thought I would come."

But I frequently find a mother's idea of "all right" to be my idea of "all wrong."

I looked at her shoes: They were made of kid. The soles were thin. Her brother shod thus would have felt as though he had gone into the street in his stocking-feet. There was sleet on the ground, but she wore no overshoes. The heels were an inch and a half high, pointed, sloping toward the middle of the foot, and they were worn off and rounded at the edges, and they must sometimes have "turned" under the poor little wearer unexpectedly.

"My heels do turn under me, mother," said the girl as I spoke of this.

The neatly fitting stockings were cotton, extending over the knees, where they were held in place by a broad "elastic." I drew one of them off. The poor little foot was as cold as ice, and nearly as col-

orless. The stocking was impressed upon the skin about the ankle from the pressure of the shoe. Above the knee the elastic had reddened the flesh and indented it in ridges.

I placed the cold foot on a piece of paper, and drew an outline of it to show the mother the contrast in width to the sole of the shoe.

I bade her observe, too, how she must poise on the toes of the bare foot to bring its heel on a level with the heel of the booted foot.

"Can you wonder she does not take kindly to long walks?" I asked. "Walking or standing, she must balance herself on her toes and a peg under her heel. The body is thrown forward, out of balance, and all the muscles from the hips downward are put upon a strain—I assure you they often fairly quiver from fatigue. No wonder she is not a gentle, graceful walker, and that she never runs. She is obliged to hobble, my dear madam. And do you see these callouses, the beginnings of corns and bunions? Perhaps you think that the ankles are really supported by this tight leather that encases them up so high, but it is not so. The English Alpine mountain-climbers who endure best, wear a low shoe."

"Still I hope you won't prescribe for her those ugly 'Macomers' that some of the New York women are wearing—such ugly shapes!" said the mother.

"They are proper boots to wear, nevertheless," I said; "and had you studied how most effectually to impede the circulation of the blood to her extremities, you could not have done it more successfully. Elastic bands are injurious, no matter where worn; but the worst place of all is just above the knee, where there are such prominent blood vessels and nerves. And have you really considered these thin stockings?"

"She has always worn them," said the mother. "Of course I would not put them on her suddenly of a winter's day. But, as one may say, she is hardened to it."

"So are the Esquimaux and Laplanders hardened to cold—look at the stunted creatures! And look at this thin, cold little leg—it has no plump calf, no curves! it has had no warmth to develop it."

The child, in whom there was probably a latent conception of beauty, looked hurt and tearful; but how could I spare her?

"Now try a full, deep breath! See, something prevents her. She breathes from the upper part of the chest. There is no distention at the waist, no movement at all of the abdominal muscles, as there would be if the lungs filled to their natural capacity."

Investigation revealed a corset, and that brought forth the following dress history from mother and daughter:—

Up to eleven years of age my little patient had worn loose waists, her skirts buttoned upon them.

"And how could you," I interrupted, "have taken them off at that critical age, when her form was changing and rounding out, and needed room and

freedom to do it in, and substitute a laced, boned and steeled jacket?"

The mother hesitated; but the little girl answered: "I had a weak stomach, and mother thought it would do me good to have the support of steels. She said I sat all over in a bunch; and besides I must have some shape given me, or else I would have a waist as big as a boy."

"Yes," said the mother, "and Mamie wanted corsets. Her school-mates were putting them on, and she did not want to be odd. So I bought her some. She did not wear them tight."

"Oh mother! they were tighter than you thought, because when I went to stay with Clara White one night, she said I would look ever so much better if my waist was smaller, and so she laced me, and after that I wore my corsets so, so as to look as slight and pretty about the waist as I could. I used to be ever so glad when I got them off at night and could take a long breath. But if I didn't wear them, I had an all-gone feeling and couldn't hold myself up."

"Well," said I to the mother, "it is as I thought. The corsets, and the elastics, and the tight, narrow-soled, high-heeled boots are the causes of much of the mischief here. The corsets alone prevent her breathing right; have brought the muscles of her waist into disuse; have interfered with the circulation of her blood by pressing upon the very fountain-head of circulation, the heart; have weakened her power of digestion by making it impossible for the stomach to dilate and contract with freedom; have undermined her nervous vitality by pressing upon her nerve-centres. You have, too, heated her about the waist unduly by the disproportionate number of thicknesses over that region compared with other parts of the body, parts that should have more instead of less heat, because of the greater distance from the centre of circulation. Look! from the knees to the feet one thickness of thin cotton; the under-flannels extend only just below the knee. Now count the layers of cloth at the waist: undervest, chemise, corset of the cloth in double, corset cover, lined dress waist, to say nothing of various bands; and over all, drawing all into the smallest possible compass, is this broad, unyielding leather belt! How can flesh, blood, muscle, nerve and bone under this heat and pressure remain true to the functions assigned them?"

"This heavy quilted skirt, too, that Fashion has again brought into wear, is specially objectionable, hanging, as it does, from her slender hips; and when wet around the bottom it is too thick to dry quickly, and damp ankles is the result of a walk on a wet morning."

"Nothing is right, it seems," said the mother, half-vexed. "And still, what am I to do? Her clothes are made for the winter. It is impossible that I should go to the expense of refitting her. Nor," added she, "shall I enjoy seeing her a dowdy."

"I see. But you can do much with needle, thread and buttons. Unite her undervest and drawers with

buttons and buttonholes. Take the steels and bones from the corset, and button or hook it. Add to it shoulder-straps, and also buttons to button on her skirts, and side elastics to hold her stockings up, taking care that this attachment is made back of the prominent hip bones. Set her boot-buttons forward until you can put your finger between boot and stocking. Replace the heels with broad ones only a half-inch high. She must wear overshoes with these boots, but when new ones are bought let them be heavy, to avoid overshoes. She also must wear leg-gings until you buy thick stockings.

"Meantime, I will give you the address of some

hygienic outfitters in women's wear, so that you may acquaint yourself with healthfully cut garments before dressing her for the summer. You will be delighted to see how few pieces are needed, and that wearing them your daughter may still be elegantly dressed."

"I know one thing, mother," said the daughter, "I can't go to the gymnasium and then feel comfortable in these clothes next day. This morning I felt as if I'd outgrown every single thing I put on."

I felt, as she spoke thus, that, once set in the true ways, the child herself would right her wrongs. So, with a real interest in her, I asked them to come once more, and talk with me about what she ate.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

V.

THE RIDE TO NEW YORK.

"Nothing more aptly describes the character of our Republic than the solar system. . . . The sun holds in the grasp of its attractive power the whole system, and imparts its light and heat to all, yet each individual planet is under the sway of laws peculiar to itself. . . . So the States move on in their orbits of duty and obedience, bound to the central government by this constitution, which is their supreme law; while each State is making laws and regulations of its own, developing its own energies, maintaining its own industries, managing its local affairs in its own way."—GARFIELD: *Chips from the White-House*, p. 422.

THE Travelling Law-school is now to ride in the cars from Boston to New York. We will notice on the way whether things which we see are under State law or under national. In the little villages almost the only national thing is the post-office. It is the United States government which carries all the letters and newspapers, owns all the mail-bags, employs all the postmasters and carriers; and it needs a great many post-offices. In New York the post-office is an immense stone edifice. On Western prairies the post-office is sometimes only a box upon a tall post. The carrier leaves the letters in the box, and the settlers look into the box, whenever convenient, for their letters.

Thus we can never tell by the size or importance of the building whether the business done within it is State or national. In Worcester, through which we pass, is a large and handsome asylum for insane persons. This, like most asylums, is under State laws. The next large city we pass is Springfield. Here is an armory. It is an immense establishment for manufacturing cannon, rifles, pistols, cartridges, and various equipments for the army. This armory is under United States laws. For whatever relates to the army is managed by the national government.

A State does not have an army; if enemies come, and she needs one for driving them away, the Governor writes to the President, and the President orders a troop of soldiers of the national army to go and help that Governor and his State. The States have what is called the militia, or the national guard. The men between eighteen and forty-five are in duty bound to serve their State as soldiers, when needed, and they form companies and practise military evolutions, and learn how to load and fire. Whenever there is a war, and the nation needs a larger army than the national government has, the President asks the governors to send some of the militia. And the militia march forth from the States, and join the army, serving as soldiers under the President's orders while they are needed. This seems very perplexing. If the Governor needs the army, he must send to the President; and if the President lacks soldiers, he must send to the Governor. But it hinders either government in making war upon the other. And military service is made very easy and inexpensive. In America the army is very small—only about twenty-five thousand men. It does not cost the people much, and whenever the people think it costs too much they can vote to make it smaller. They need not serve in the militia more than they vote to do.

All this is very different in foreign countries. In some, every young man must serve in the army for a few years, whether he wishes or not. In others, lots are drawn in all the villages once a year; and the lads who draw unlucky numbers are marched away to become soldiers. This is called the conscription. Many interesting stories have been written about youths drawn in the French conscription. We never need a conscription, unless for a very short time when

there is a great war. Never but once has there been a war in this country requiring a conscription, or a "draft," as it was called. The reason is, that all the States are united under one national government. And as long as that government can be maintained, no wars can arise between the States, and the army need not be very large. In Europe, the governments are independent, and therefore in more danger of war. So they need larger armies, and must have harsh laws for obtaining soldiers.

Switzerland is a small territory. It is defended by rivers and mountains against attacks from neighboring powers, and has an excellent government to preserve order in its own territory, and for these reasons has less need of an army; but every man has to be a soldier, and is drilled and assigned to a company. In time of peace the Swiss men engage in various kinds of business, but all have to be ready, in case either of the dangerous neighbors should make an attack, to join the army.

The navy, like the army, is under United States laws, and may be quite small. At present the American navy has about ninety steam vessels and twenty-three sail vessels. This is a very small number for so large a nation. Most of these were hurriedly built during the civil war, and are nearly worn out; for when a ship in the navy is fourteen years old — just the age when a boy can be useful — she is considered too old for important service. Of the steam vessels in our navy, twenty-four are of iron, sixty-six of wood. European countries have built many iron and steel ships, much stronger than any we Americans have; and many persons think our navy ought to be made larger. Others think the people should not be taxed for these costly ships. As our governments are arranged, the States are not at any expense for a navy, and the United States need not spend any more for one than the representatives of the people think best.

Soon after we pass Springfield, in our ride, we shall cross the boundary line between New York and Connecticut. Shall we watch for the line? There is nothing to be seen. A girl about twelve years old was one day riding with her parents, and heard her father say to her mother, "We are drawing near the boundary between the two States." This girl had studied geography, and knew about the boundaries, and she thought she should like to see one. So for a long time she sat looking out of the window watching for it. At last she asked, "Papa, when shall we come to the boundary line?"

"Oh, we have passed it."

"No, papa; I have watched carefully."

"Why, did you think there was a line you could see, like a clothesline, or a telegraph line?"

"I thought there would be a line like the one drawn on the maps."

"Oh, no," said her papa; "there is no actual line. There is nothing to be seen. It is only the place which men have agreed shall be called the end

of Massachusetts and the beginning of Connecticut. Men can determine where it is by measuring, and can put stakes to mark the place; but the real boundary is an invisible thing. It is like the end of an hour; people know when they come to it by the hands of the clock, or hearing it strike; but the real end of the hour cannot be seen or heard."

The girl thought this was difficult to understand, and it is. Yet the boundaries of the States are very important things.

About a hundred years ago there were but thirteen States; yet even then wise men saw that it would be best to form a Union or Federal government. Also, there was a great deal of wild land outside the thirteen States, and gradually enough persons settled upon various parts of it to form additional States, and these new States joined the Union. While a region of country is gradually growing thickly settled enough to become a State it is called a Territory; but it has a government very much like that of a State. At present there are thirty-eight States and eight such Territories.

Have you ever examined the American flag? There are thirteen horizontal stripes, red and white alternately: these represent the States which at first formed the Union. And there is a blue field in an upper corner, in which are now thirty-eight stars: these represent the whole number of States at the time when the flag was made. If you buy a flag, count the stars and see if there are thirty-eight. If not, the store-keeper is trying to sell you an old-fashioned flag. And whenever a new State is admitted all flag-makers ought afterwards to work an additional star in their flags to represent it. The union of the States is also expressed in the motto, *E pluribus unum*: one from many. Americans have one government, the Union, composed of many States.

One great benefit arising from the Union is that there are no custom-houses at State boundaries, nor are any passports required. Americans who go to Europe learn that they must before starting get a passport — which is a writing showing that the traveller is an American citizen. In crossing the boundaries of the various kingdoms and principalities of the Continent, they often are required to show their passports, and allow officers of the kingdoms they are entering to examine their baggage. This is very inconvenient. Few persons realize that if it were not for the Union, travellers might probably be required to exhibit passports and pay duties at the custom-house — which is an office for collecting money to support the government — every time they crossed a State boundary line. On the journey the Travelling Law-school is taking this would happen six times: first at the boundary of Connecticut, again at the boundary of New York, again on entering Jersey City, and on crossing into Pennsylvania, Delaware and Maryland, one after another. It is the Union which saves us this annoyance.

THE WIDE AWAKE POST-OFFICE.

Those who wish their letters published in the WIDE AWAKE Post-office should direct their letters thus: EDITORS OF WIDE AWAKE, 32 Franklin St., Boston, Mass.

Those who wish to ask questions of somebody much wiser than persons of their own years, should address their letters thus: THE WISE BLACKBIRD, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

Those who are pursuing the Reading Course of the C. Y. F. R. U., and would like to ask questions about any article in that course, may address their letters to the author of that article, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

All who wish to join the Chautauqua Young Folks' Reading Union can do so by sending their names with three three-cent stamps to the President of the Union, Rev. Dr. J. H. Vincent, Plainfield, N. J.

Our young artists are referred to Mr. Hale's request on page 106 for a good Garfield medal design.

FOLLOWING close upon the superb frontispiece (Second Prize), "Winter Birds," which adorned our January number, comes, in this number, the fine drawing by Robert Lewis, "The King is Dead — Long Live the King!" which bore off the Third Prize. Not often do such costly pictures appear, one after another, in the pages of any publication; and it is with warm congratulations to our readers that we promise they shall see, as frontispiece to the March number, one of Charles Volkmar's famous duck-pictures, purchased for the magazine at the time of the Prize Competition.

The young folks of WIDE AWAKE will be glad to read a letter from "Little Botanist" once more; glad to know she is growing stronger, and that by the loving care of the many, many friends she has made through WIDE AWAKE, many, many pleasures have been placed within her daily reach — pleasures, some of them, that will be life-long. As our own holiday greeting to "Little Botanist," we whisper her that she, with her train of flower-loving friends and correspondents, was in the thoughts of the Editors when they requested Miss Harris to write the "Wild-flower Papers," which are to appear in the magazine this year. They are eight in number, and each is to have the most exquisite drawings that can be made.

DEAR WIDE AWAKE:

Please go and tell my friends that I wish them a "Merry Christmas" and a "Happy New Year." Tell them that I have been up among the hills with a dear WIDE AWAKE auntie all summer; her house is in a pine grove, and from it you can see the hills far away. I used to lie in the hammock and look at them and wonder what I should find if I could go to those purple hills. Sometimes I lay under the pine trees, and I loved them best of all. All this summer I have been growing under them, listening to them and loving them. In the morning from my window the pine wood looked like the cathedrals that I

have read about — for I could see down long aisles to where the branches, crossing against the rosy eastern sky, looked like a rose window at the end. I think perhaps I liked lots the best the sunset behind the trees which spread long pathways of light on the ground and touched up the pine boughs with crimson until they seemed on fire. My uncle carried me to the saw-mill, where "I saw the saw saw," and he took me to see the threshing-machine. I liked *that*, noise and all. I liked to watch the belts go round and the dizzy wheels whirl; but I pitied the poor horses toiling up their topless hill.

I know some of my old friends will care to know that I found three hundred and sixty different flowers this summer — I mean that they were brought me by uncle and auntie and Harry and Nan. I did pick one Andromeda blossom myself. It was when uncle Grover made a little bed in his boat and took me out to row on the lake. The Andromedas grow in the water. Have you ever seen any, Edith Blake? They have clusters of waxy globe-like flowers, pinky-white; these were like Arbutus-bloom. The Heath family like the hills, and I found several of them: Arbutus and Andromeda, Labrador Tea, lovely Wild Azaleas, Indian Pipe, Pipsisseway, Winter-green, Leather-leaf, Pyrola, Cassandra, and a great many more.

I wonder if the rest of you in your summer rambles found as many flowers in that family; and if any of you have found the Andromeda I wish you would write to WIDE AWAKE about it. I send my love to all of you, especially to Edith Blake, Julia Cracroft, Harry Hinman, Willie and Ernie Thrum.

LITTLE BOTANIST.

JULY 27, 1881.

DEAR WIDE AWAKE:

Should you find the enclosed poem clever enough to put in the Post-Office department of the WIDE AWAKE it would give great pleasure to the young author, as well as to many of her friends.

I have used the WIDE AWAKE in my school as supplementary reading for the last two years, and like it much. My pupils are also delighted with it, and my children think it is *almost perfect*.

Yours respectfully,

A SUPERINTENDENT.

The Postmistress has been empowered to say that no small part of the pleasure in making WIDE AWAKE, comes from knowing that daily, in schools all over the country, bright, well-trained boys and girls are reading aloud its stories, poems and articles, and discussing its beautiful pictures; and that this knowl-

edge is an incentive to make the magazine better and better. Teachers are already finding out that, as reading exercises, nothing better can be found for their most advanced classes than the authorized Reading Course of the Chautauqua Young Folks' Reading Union, published in WIDE AWAKE each month. But here is the poem:

THE FAIRY QUEEN.

It was an evening cold and still;
The snow-flakes fast were falling,
When just without my window-sill
I heard a sweet voice calling.

I looked, and lo! a tiny wight,
In seeming like a fairy;
Its robe was soft and fleecy white,
As gossamer, light and airy.

"I am the fairy queen, you know,"
She said; "these stars my jewels are;
My garb is feathery fleecy snow,
Bedecked with diamonds rare.

"My home is in enchanted land,
Far up in yonder sky:
There in a palace gay and grand,
We live — my fairy band and I.

"Up in Cloud-land we sing, and play,
And dance, and ever merry be;
And if you'll come with me away,
The fairies' dancing you shall see

"Then away to Cloud land with me,
To my fairy home in the sky!
Away to my palace let us flee,
We'll go together, you and I."

Just then I heard a tinkling sound,
Like fairies softly singing —
And woke — 'twas all a dream, I found,
And — the supper bell was ringing!

LILLIAN.

And here is a chatty letter from the merry writer of the verses herself, who seems to find matters of the real life around her more puzzling than the ways of Fairyland. The evidence seems to be, Lillian, that there *are* machines for grinding out "poetry."

I hope you will think the little poem papa sends for me nice enough to print, for I sat up till ten o'clock last night to finish it. Mamma says if I keep on in this way I shall be blind soon, for I've just got up from the measles.

My sister Jane says it — the poem — is just splendid; and Jane ought to know, for she's real *literary*, a regular "blue-stockings." She takes *Godey's Lady's Book* and the *Hoosac Valley*

News, for which she also writes sometimes, and reads all the stories, and, besides, has two or three books a week from the library. Jane knows all about novels and poetry that is worth knowing. Mamma says she wishes there never was such a thing as a novel; or a story; for when she wants Jane to wash the dishes or dust the parlor she is sure to have her nose in a novel.

But Jane says washing dishes makes her hands large and *grimy*, and the young ladies in her novels all have such delicate white hands. My! I wonder if they ever help their mothers wash the dishes or sweep the parlors. I guess not.

When I showed my poem to papa he was pleased enough with it (I mean he shall be proud of me some day), for you ought to have seen him laugh. He patted me on the shoulder, and said: "Very well done, my daughter!" (he always calls me *daughter* when he wants to praise me); "I guess that's about as good as any of their machine poetry."

Now, dear WIDE AWAKE what *is* machine poetry? what did papa mean? I asked mamma, but she only laughed, and said she guessed papa was chaffing. But what *is* it? Do they really have machines to grind out poetry, just as they do corn? Do you think papa was complimenting me, or only poking fun? He's so droll sometimes, I can't always tell.

However, here's the poem. I hope you'll like it. When I grow up I'm going to be an authoress, like Mrs. Hemans and Mrs. Stowe, and those charming Goodale girls.

LILLIAN.

ESSEX, MASS., DEC. 5, 1881.

DEAR WIDE AWAKE:

Although "genius does not burn." I am going to write my long-deferred letter to you. I have not taken you for the past year, but have bought you, and in the March number, I think it was, I saw that a girl mentioned my name and said she would like to write to me. This was so long ago that probably she has forgotten it. I *should* like to correspond with her very much, for I'm a regular Wilkins Micawber, and cannot get enough people to write to me. I tell her this for fair warning, so that she may know what she is undertaking.

A week or two ago I went to an entertainment given by seven live Arabs and their interpreter fresh from the mother country. They could not speak a word of English. They performed their ways of eating, trading and dancing, their manners of salutation, and also a wedding ceremony. The latter was very amusing; but I could not help feeling sorry for the poor bride. She sat among her people, with at least three napkins on her head, while they made the most horrible noises on their so-called musical instruments. This continued for a while, and then she was lifted on to something like stilts, "to show," as the interpreter said, "that she is lifted from the position of maidenhood and is now a married woman," and helped around the room; then her part of the ceremony was over. After the entertainment was finished the people were allowed to come to the stage and see them; and they sold coins, etc., to carry home as souvenirs. I have (I don't know what to call it, but I guess it comes as near being a weed as anything) something which, put in water, will open, and taken out, will dry up. I *suppose* it came from Palestine.

RUTH.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

VI. — MILTIADES AT MARATHON.

BY THE EDITOR.

REJOICE! We have won the victory!" The words fell from a dying soldier, still bloody and worn by the fight, as he rushed into the Agora at Athens, and saw the crowd of anxious faces that surrounded him. His strength sufficed for nothing more. He sank on the pavement, overcome by the fatigue of a long journey on foot, after a struggle with the enemies of his home and of his countrymen such as the world had seldom witnessed. We cannot honor him by name, for to us he is but a voice, an heroic voice, crying with feeble tones, but sending a thrill through our very heart.

Let us try to enter into the feelings of the people to whom this dying soldier carried his welcome message. The scene lies in Greece, on a September day, 490 years before Christ. For nine days Athens had been in suspense. The overwhelming army of a conquering nation lay but twenty-two miles distant, threatening the liberty of the citizens—their very lives. I imagine there had been consternation in Athens when the cry went through the streets, "The Persians have come! The Persians have come!" for it was thought that nothing could withstand the armies of that great nation. The king was Darius, and under his sway were all of the peoples of Asia, except those of China. There were the Assyrians, the inhabitants of the great region of northern India, the Babylonians, the Syrians, the Phœnicians, the Chaldeans, the Medes, Parthians, Phrygians, and I do not know how many other terrible warrior-peoples.

Their progress had been one almost uninterrupted victory, and they now stood on the soil of Greece after having conquered islands and nations much more formidable than the little land they were now expecting to punish. You would be surprised, perhaps, to know that it would take ten countries as

large as Greece to make one of the size of the State of Massachusetts, and four hundred to equal Texas. It is not nearly so large as Rhode Island. What did the great Darius fear from a country so small as that? Nothing at all. Some years before, he did not even know that there was such a country. He found it out in this way: One of his cities was named Sardis. The Athenians sent some ships over the sea to capture it, and they succeeded. It was a surprise to Darius, and he asked who these Athenians were, and when he had been told, he ordered his bow to be brought to him, and as he shot an arrow from it, he said, "O supreme God, grant me that I may avenge myself on the Athenians!" He then appointed a servant to say to him every day at dinner, "Sire, remember the Athenians," so that he should not forget so little a nation.

Were not the people of Athens brave to dare to stand up against such a great king? They were; but I think that they knew that the people in the armies of Darius were not fighting for their homes and their families, and *could not* have the same strong feelings to nerve them in any struggle they were ordered to undertake. When the Athenians went out against the armies of Darius they remembered their children and their wives at home, and the sweet associations that clustered about their firesides. For them they fought, not for a great royal master. That is the reason they were strong.

The Persian army was at Marathon. It is a place connected with the mythical stories of the Greeks. It was there that Theseus killed the great bull which had been let loose by Hercules. If you were to stand on the plain of Marathon with your back to the sea where the ships of Persia lay, you would look up to the hills on which, and at the foot of which, the little army of the Athenians camped from the ninth to the twelfth of September B. C. 490. You would see that the Persians had a broad, open plain in which they could spread out their great army. This was not entirely an advantage, for the Athenians had

the hills, and could overlook all the movements of their enemies.

The Persians were commanded by a general named Datis, who was not only skilful, but just then was flushed by the successes of his late campaign in the islands of Greece. He was aided also by an Athenian, named Hippias, who had been banished from the city about twenty years before. He was now a traitor, and wished to deliver his countrymen into the hands of their enemies. He was old, and his teeth were so loose that one of them dropped out on the sands of Marathon as he sneezed, from which he augured that he should fail in his enterprise. It was a guess, but it proved not a bad one.

How many Persians there were on the shore and

over on the other side of the Ægean sea, near where Constantinople is now.

Day after day the armies lay opposite to one another, neither being ready to begin the attack. Perhaps the Persians thought that they could wear out the Greeks in time, and the Greeks were not sure enough of victory to dare to begin the battle. At last, however, Miltiades determined to attack his enemies. He arranged his little army at the foot of the mountains that look out upon the sea, stretching the line all across the narrow valley. He made it very strong on the sides, but left it rather weak in the middle.

He would have made it strong at every point if he had had enough men. On one side were about a



MARCHING DOWN TO ATTACK THE PERSIANS.

in the ships, I dare not say, for historians differ about it; but probably there were not less than one hundred thousand. It was a very large army to come against a land smaller than Rhode Island.

Before the Persians lay an army of Greeks, counting probably about ten thousand men. They were commanded by ten officers, the chiefs of their ten tribes, but one of them was permitted to direct the movements, because it was felt that he was the best qualified to win victory. His name was Miltiades. He had good reason to be ready to attack the Persians, for they had captured one of his sons; and he was no less ready to fight for Athens, for he had obtained a bad name there on account of some of his doings as ruler of the Thracian Chersonese, away

thousand from Platæa, who had hastened to the defence of the country. They were the only people outside of Athens who joined in the battle. They had been aided by Athens some years before when attacked by Thebes, and owed their independence to this help. The Spartans should have sent soldiers, but they did not, saying that it was at a season when they could not fight, on account of their religion. Perhaps they did not want to help Athens; but they may have been honest in regard to their scruples, for they did send some soldiers, who arrived too late to be of service.

The troops stood neighbor by neighbor, friend by friend, each one feeling, as I have said, that he was fighting for his home. There was probably a body

of spearmen about eight deep. After the trumpet had sounded the signal for action, the men advanced down towards the Persians on a run. We can imagine them singing, as they went, the words of Æschylus: "*On, sons of the Greek! Strike for the freedom of your country! Strike for the freedom of your children and your wives—for the shrines of your fathers' gods, and for the sepulchres of your sires! All, all is now staked upon the strife!*" We cannot imagine that the Persians urged one another on by any such chant. They were about, as they supposed, to crush out a little nation that they had, until lately, never heard of, and there were no motives of patriotism to appeal to on their part.

The Persians thought the men were running to sure destruction, and they advanced against the middle, where Aristides, one of the best men of the time, and Themistocles were in command. The line was weak there, and the Greeks retreated up the valley; but in the mean time the wings had put the Persians to flight, and instead of following them, turned upon those who were pursuing their own men up the valley. This brought the Persians between two armies. It caused them to fall back to attack the new assailants. This gave Aristides and Themistocles time to mass their troops and renew the attack. The Persians, never before beaten, turned their backs and fled. There was the sea before them, and their ships, but they could not get into them quickly enough, and many were drowned, besides many were caught in the marshes that lay at the sides of the valley and perished. The Greeks followed them with all the spirit that fills the heart

of a gallant warrior at the moment of victory. They struck the now terrified Persians down as they hastened to their ships, and hundreds of their bodies soon strewed the beach.

The soldiers from Sparta arrived in time to hear the shouts of victory and to see the ships of the Persians sailing away towards Athens, which Datis expected to find unprotected. More than six thousand of his men had fallen under the stern strokes of the Athenian swords, or had been lost in the marshes or the sea. Only one hundred and ninety-two of the men of Athens had fallen. Was it not a wonderful victory for the little army of Miltiades? The bodies of the Greeks were buried on the field, contrary to the usual custom, and a mound was raised over them.

When Datis reached Athens, he found that Miltiades was there ready to meet him, and he therefore sailed homewards. If he had conquered the Greeks, he might have proceeded against the other nations of Europe. Rome was very weak at the time, and there was no other nation able to resist. Asia would have spread over Europe then, would it not? I think it would have made a great difference in the civilization of Europe if Miltiades had not stopped the Persians at Marathon. But this is not our subject of inquiry. We wish only to admire the patriotic struggle for freedom that has made the names of Miltiades and Marathon immortal.

NOTE.—COLLATERAL READING.—The geography of Marathon may be studied in Smith's "Dictionary of Greek and Roman Geography," and the history in the same author's "Dictionary of Greek and Roman Biography." The story of Marathon is told in Sir Edward Creasy's "Fifteen Decisive Battles of the World," in Miss Yonge's History of Greece, in Grote's History, and, in short, in any good history of that country.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

V.

REYNARD.

IN Æsop's Fables there are many stories in which the fox has a part. Usually he gets the advantage over some other creature, though occasionally he has the worst of it. He is too sharp for the goat, the dog, and the wolf; even for the intelligent lion, the keen-eyed eagle, and that shrewdest of birds, the crow.

He is proved to be a flatterer, a schemer, and a rogue. He is smooth of speech, he is adroit and long-headed. And he comes as near telling falsehoods as he can and just missing of it. If a lie is, as some moral

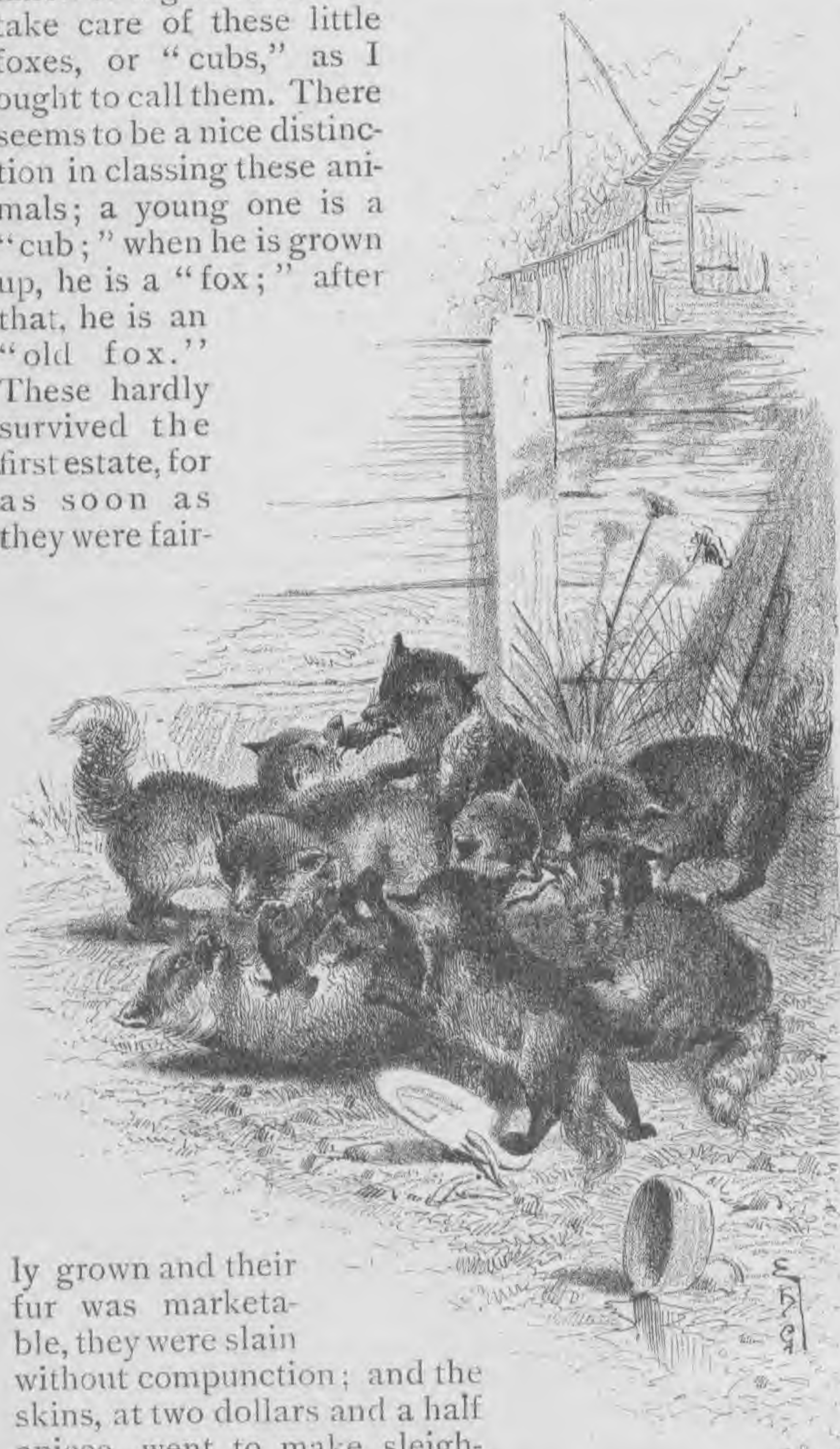
philosopher has stated, "an intention to deceive," then is the fox an unmitigated liar. There is no palliating or explaining it away, and I offer no apology for him.

But, notwithstanding his ill reputation, I, for one, have always been glad of a chance to make his acquaintance. I know that most of his door-yard experiences have an intimate connection with the disappearance of some inmate of the hen-house. I remember that he has been guilty, in one season, of spoiling ten Thanksgiving dinners, by making off with that number of turkeys. The sense of property rights was left out of his constitution. He does not know the difference between *meum* and *tuum*.

Some of my pleasant recollections about animals

are of some lively young foxes. There was, in fact, a series of them: one year there were seven; another there were nine; and the last time there was but one. They had been captured from the dens, and were kept in high pens out by the barns. Their histories were brief; they all but one came to a speedy end. Their owners had no enthusiasm about seeing what intelligence a fox would develop under kind treatment and the influence of human society.

Boys are born traders. The love of buying and selling, and, above all, swapping, is an instinct with them. So it was with a view merely to a mercantile transaction, a traffic in peltry, that all the trouble was taken to dig out and then take care of these little foxes, or "cubs," as I ought to call them. There seems to be a nice distinction in classing these animals; a young one is a "cub;" when he is grown up, he is a "fox;" after that, he is an "old fox." These hardly survived the first estate, for as soon as they were fair-



UNPRINCIPLED LITTLE SAVAGES.

ly grown and their fur was marketable, they were slain without compunction; and the skins, at two dollars and a half apiece, went to make sleigh-robes, perhaps; or who knows but they might have been sent off in a cargo to China? for, curiously enough, that is where some of the skins of the red fox go (red, you know, is the Chinese color), where they are used to trim and line the winter

wrappings, the pretty black fur of the legs being sprinkled over the main portion for ornament, like the tips on ermine.

All these were common red foxes; not so valuable as the silver-grays, or the species which, like the old Crusaders, has a cross on the shoulder, but worth enough to induce these boys to work hard for them. "And it's no easy matter to dig out a fox, let me tell you," said one of these young fur-traders. Reynard constructs his den with great ingenuity, and provides a way for escape. It is not difficult to find the den: the trouble is to know when he is at home, and when he is, to get access to him. He is not an animal to be "interviewed." After all your digging and contriving, he is not there. He is out. You may have stormed his stronghold, gained entrance, and taken possession, but he has eluded you. He is somewhere in the neighborhood "laughing in his sleeve," while you, dripping with perspiration, tired and cross, are gathering up your pick-axes, your crow-bars and shovels and hoes. That is what the boys said.

After a little experience in hunting, however, they captured a basketful of cubs. The pen was nearly ten feet high, and floored over so that they might not escape by burrowing out; and to make it seem more home-like to them, a load of earth was thrown in. But whether it was because they saw too much company, or there were too many of them, or from some other cause, it was not possible to tame them. They were snapping, barking, ravenous, unprincipled little savages from the first; and how they would fight and snarl over the dead woodchucks and pieces of meat thrown in to them! Indeed, they were a disappointment.

It has been said that it was impossible to tame a fox; and if you ever hear of one that gives promise of being contented and domesticated, something is sure to happen to him. There was a London cabman who had a cub he was very fond of, that went with him everywhere, like a dog; but one day, when he was driving home from the races, the cab was overturned and little Reynard, who always rode on the top, was killed; so he was "out of the story;" and what he might have been will never be known.

The one I referred to in the beginning, that was not slaughtered for his skin, was taken from the den when a little thing not so large as a half-grown kitten, brought home and cared for and fed with the out-of-door animals. In his small childhood, or foxhood, he was of a Maltese color, growing whitish underneath, and he had a tip of white to his tail, which was like a soft round brush. His feet and his slim legs were so black that he had the appearance of having on the neatest and nattiest, the most dapper and best-fitting set of boots. He was as round as a sausage, you could not see where he had a bone in his body. His fur was close and thick, more like lamb's wool than hair; you wanted to bury your fingers in it, and caress it, and stroke it as you would plush. He was

like a soft, warm, fleecy tippet, and you could cuddle him like a kitten. His nose, instead of being sharp, was short and blunt, and looked as if it was made of a good solid block of gutta-percha with two holes to breathe through; and oh! the whiskers, so fine and black! those few stiff hairs which helped to make him appear so knowing!

So you see that between infancy and mature years Reynard undergoes quite a change. As he grows older his nose grows longer, as if he kept poking it further and further out into the world, till it is drawn out to the point which gives him that look both quizzical and cunning. His body from such a snug roll becomes long and hairy, and changes from blue-gray to red; the place of the shoulders and haunches shows; and he becomes elastic, till he can bound off through the air almost like a thing with wings.

If you have ever seen an old and a young one together, you must have wondered how they could be relatives and differ so much. For, except for the black boots, the roguish air, and the trig ears, there is hardly more of a resemblance than between a polar bear and a puppy. The ears I had almost forgotten. Important organs are they for the fox; wonderfully suited for the use of a creature so vigilant; "ears to hear with," as his cousin the wolf said to little Red Riding-hood, small, but wide open, alert, right up, alive with intelligence. They express a great deal.

"What! *ears*?" you say. "Expression in ears?" To be sure; you know how much a horse shows with his. If he cannot tell you all his heart with them, he can show if he is pleased, if he is startled, if he is angry, if anything is going wrong. I have heard men who know horses, say they would not give much for one who had not sensitive ears. Think of a donkey's by way of contrast. The fox must come in with the animals who manifest extraordinary keenness of instinct, sagacity and quickness with the ears. No limpness about them. Strong outlines, good nerves, firm substance. They are always awake. He is as attentive to sounds as the moose, which can detect a man's step on a crackling twig in the midst of the noise of the most violent tempest. Eternal vigilance and the necessity for self-preservation have sharpened and strengthened his faculties.

This pet cub (he should have had a name) lived about the door, associating with the dog, and running about the house or premises as the dog did. No restraint was put upon him; he was never confined in a pen, or chained. He was a regular door-yard fox; perfectly contented, and foraging a good deal for himself. He never meddled with the chickens,

though if he had remained a few years, no doubt the fox nature would have developed, and the coops and roosts have lost their occupants in consequence. He was very fond of mice, and was equal to a weasel or terrier for ferreting them out.

In his ways he was bright and interesting; when he ran to meet his master, to be fed, he had a pretty trick of raising one fore-paw and holding it out, as a horse sometimes will when he feels well and wants to be playful; and he would look up with such an arch expression on his cunning little phiz! He looked as if he could tell a plausible story, and argue as glibly, and flatter as successfully, as any Reynard of the story-books. You may depend upon it that those old narrators knew what they were talking about. Fables, as you know, originated in a rude and simple state of society, when people lived an open-air life and had opportunity to observe the habits of animals, just as David did about the comings of the rocks — otherwise rabbits, something like our own. Those shepherds and hunters had time enough. The world did not move so fast then as now. They watched closely; and when they told in fables (which are as old as the Bible) of the traits of lion, or stork, or wolf, or fox, and made them talk, to illustrate a moral for human beings to learn something by, they were not apt to make mistakes.

Things went on well with our little Reynard until "hoeing time." He used to go out hunting with his master, who would whistle for him when he was ready to go home, and he never failed to come bounding into sight. One afternoon the two went together to the field, and while the man hoed the corn his companion ran about as usual, burrowing for mice and moles; but when it was time to leave off work the cub was nowhere to be seen, and he was whistled for and waited for in vain.

That was the last that was ever known of him. He had probably fallen in with another fox up among the rocks, and all at once it had come over him that he belonged with a different race from the one he had been living with. I doubt if the instinct for freedom ever dies out of any of the wild creatures. They are like the North American Indians, — I do not mean the Hampton students, Bright-eyes, nor the Choctaws, but the original red men of the forest, when it was the "forest primeval." Sometimes, as you will remember, some friendly white family would adopt an Indian captive; but he always pined for the wilderness, and sooner or later, the yearning overcame every other feeling. And some day he was sure to strike out for the pathless wilds, and come back no more.

OLD OCEAN.

BY ERNEST INGERSOLL.

IV.

THE POLAR REGIONS.

EVER since the sea-route from Europe to India and China was settled and the coast of South America explored, the regions within the Arctic circle have been the favorite field of discovery. It occurred to every navigator that as a way was found past the southern end of the American continent, so one around its northern border might be disclosed; and perhaps, also, a ship-route along the northern coast of Siberia and down through Behring's straits. Both of these would be far shorter than going around Cape Horn or the Cape of Good Hope. Thus captain after captain headed expeditions of research, from Barentzoon in 1596, to Mackenzie in 1789, until, at the beginning of the present century, the mainland coasts of both continents surrounding the north pole were well known. If you look at a map of the polar world you see that these coasts form a fairly good circle of land, broken only by the Atlantic; and also that all points on this coast-line are nearly at equal distance from the pole, except at the northeastern corner of America, where a dense group of islands extends northward. Within this great circle is an unknown region about one thousand miles wide in its narrowest part, and covered with almost endless ice and snow. Whether it be all a frozen sea, or partially open water, or an archipelago of glacier-capped islands, or a mass of land, no one knows.

In the Arctic seas the perils of navigation are doubled. In addition to the storms and mishaps of ordinary voyages, the seaman must here thread his way through narrow channels whose depth is imperfectly known, will often find himself wrapped in dense fogs or blinding snow-storms, must watch lest he be crushed in ice that is drifting, or dashed to pieces against ice that is firm.

Sailing northward in summer, navigators first begin to meet with great floating masses, called *bergs*, on a line between Ireland and Newfoundland; though occasionally bergs drift almost down to Nova Scotia. Next they come to *drift-ice*—fragments large and small moving in fields, loose enough to let a ship make its way through. Beyond this is seen the *pack-ice*; that is, broken ice so firmly packed together that it cannot be penetrated; and if this is of great extent, or is a solid portion broken off the main field that has covered the whole sea or bay, it is spoken of as a *floe*.

The position where hard pack-ice is pretty sure to be met with is now well known to the whaling and sealing vessels, and the exploring ships that annually go into northern waters. It stands as a barrier hundreds of miles wide along eastern Greenland, extends from the southern point of Spitzbergen eastward almost to Nova Zembla (which has an ice-field of its own on the eastern shore), then stretches across to Taimyr gulf. Thence only a narrow space of open water is ever to be found—and that not surely—between the solid ice and the mainland away eastward along Siberia, across Behring's straits, and on beyond Alaska to the mouth of the Mackenzie river. There the great number of islands make the region so warm, by soaking sunshine into the land, as it were, and storing it up to be let out gradually through the winter, that a good deal of open water is seen during the warm half of the year, extending far to the northwest of Greenland. In the Atlantic, the fading warmth of the last end of the Gulf Stream is sufficient to keep the western shores of Spitzbergen pretty free from summer ice, and enables plants to grow and some animals to live on those far Arctic islands.

It is for this reason that the most nearly successful of the attempts to reach the north pole have been those by the way of Greenland or else past Spitzbergen. These attempts have been many; and though while I am writing, news comes of the wrecking of the *Jeannette* north of Siberia, word is also brought that a new ship of Arctic research is to be prepared in New York. It seems as though men would never stop till they had sailed over the very end of the earth, and been able to write in their log-books, "no longitude, no latitude."

To go on a polar exploration, a ship has to be made doubly strong by every kind of extra planking and bracing. None but steam vessels are sent nowadays, and they are usually accompanied by a second vessel which goes with them to Disco, or some other Danish settlement in Greenland, and carries an extra supply of coal and other things, so that they may start with full bins on the very edge of their field of work. After that they use their sails as much as possible, instead of steam, and so economize their coal. At the settlements of the Greenlanders they take on board fur-clothing, sledges and Eskimo dogs, and perhaps an Eskimo family as interpreters, with dried seal and walrus meat to feed the dogs. Years ago, canned meats and other provisions were not known, and a two years' trip of this kind was a long period of half starvation and sickness; but now very good food is

taken in compact form, and there is always a skilful surgeon in the party. Indeed, it was only a few years ago that Lord Dufferin went to Arctic regions in his steam yacht as a pleasure trip!

It is summer when they start, and generally they can pick their way through loose ice beyond the upper end of Baffin's bay. After this begin great perils as they push northward. The channels between the many islands are narrow and tortuous, and through them come drifting enormous bergs, towering hundreds of feet over the mast-head, and often pitching over. It is often almost impossible to avoid them, or the shore ice, because these island channels cause the tides to form swift and changeable currents which give the pilots great difficulty in steering.

mast-head can be seen nothing else ahead. Then the ship must be moored to its edge and drift with the floe, watching it carefully to see that something dangerous does not occur, until a crack opens and one can sail in. Perhaps after a few hundred yards of cautious progress this crack will close up, and then there is great danger lest the ship shall be cut in two by the pinching edges of the re-united floe, or held a prisoner and drift helplessly southward until the whole season is wasted.

These and a score of other perils avoided — and in some seasons no one can make any headway, while in other years progress is comparatively easy — the explorer finds himself at the end of the summer as far north as he is able to get, and either hastens



"IT IS BY MEANS OF SLEDGES, AND NOT OF SHIPS."

Sometimes it happens that two currents will oppose one another side by side, so as to bring two huge bergs together, and the ship must work hard to keep from being between when the collision comes. Then there are the packs to be studied, which is the business of a single experienced officer called an ice-pilot. The currents play havoc with these packs too. One freak is to set them spinning. Let two great whirling packs, each five hundred or a thousand acres in extent, strike one another, and you can imagine what a crashing and grinding there will be. The strongest ship would amount to nothing more there than a peanut-shell under a trip-hammer.

Often ice will bar a whole channel, and from the

back or goes into winter-quarters. Generally the latter plan is adopted, and a good harbor chosen; but sometimes the ship is obliged to winter wherever it happens to be.

The spot having been chosen, several anchors are set very firmly, all the "running rigging" is taken down, a wooden house, which has been brought in pieces, is fitted together over the whole deck, and a great wall of snow is built on the ice around the ship as high as her bulwarks, to keep off the wind, while some snow-huts are built near by as store-houses.

But these winter months are not days of idle gloom to the explorer. Harnessing his teams of dogs to his sledges, he pushes his way over the roughly frozen

sea, and seeks to gain a point far north of where his ship has been able to go. It is by means of sledges and not of ships that the highest latitude known to man—about 84° —has been reached; but many solitary graves mark their tracks.

Too often the winter's gales and the slow crowding of the ice-floe have broken the ship to pieces, or lifted her up on to the ice and placed her so that she cannot be relaunched. Then the crew must take sledges and small boats and work their way homeward as best they can. The whole history of voyaging can tell no stories to equal the adventures of these shipwrecked Arctic crews, and there is hardly a single record of an expedition which does not contain some narrative of the kind.

Such boat-journeys would in almost every case have failed had not the castaways been able to get birds and animals to feed upon, since they would be unable to carry away from the ship enough preserved food. No point has been reached, however, so far north that animals did not live there. Even the wild musk-ox in America and the reindeer in Europe and Asia have been seen as far north as men have seen anything; and cases are known of reindeer bearing the brand-marks of European herds, having been killed in Greenland, so that they must have come

across. The polar bear roves throughout the polar regions near the coast, foxes are pretty abundant, hares occur on the uttermost islands (and the hare is a plant-feeder, remember), and in Siberia the rat-like lemming is abundant. As for the water-life, the Arctic oceans harbor whales of several species—and they are sometimes caught in Baffin's bay with Siberian lances sticking in their backs—walruses, half a dozen species of seals, which keep open holes in the ice, and make burrows beneath the snow which covers it, and so pass the winter, and a variety of fishes and shell-fish. These afford food to hosts of water-birds which retreat in winter only so far south as will give them light enough to see to fish, and in summer fly northward to nesting-places often far within the charmed circle which yet defies our exploration.

Where there is so much animal life, humanity can dwell; and we find the whole of the Arctic coast-lands haunted by scattered bands of degraded Eskimos, whose habits and history are of the greatest interest, not only because they live in such eternal desolation, but because they are believed to be the remnants of the most ancient of all the natives of our continent.

NOTE.—Read the thrilling narratives of Beechy, Scoresby, Ross, Parry, Kane, Hall, Markham, Young and Gilder. There are also enjoyable Arctic books in French, German and Swedish.

WAYS TO DO THINGS.

VI.—FOR A GIRL'S ROOM.

BY SUSAN POWER.



TO SUSPEND ABOVE
THE TOP SHELF.

N old-fashioned mantel in one's room is a fortunate subject for all devices of fancy. So many lately built houses have only a stove-pipe hole and a shelf for brackets, in place of the open fireplace and generous mantel, that a girl is enviable who has a tall quaint one to dress up. If it is tall and ugly, it has so much more space for drapery and shelving; for hangings and over-mantels bid fair to become as customary as chimneys themselves.

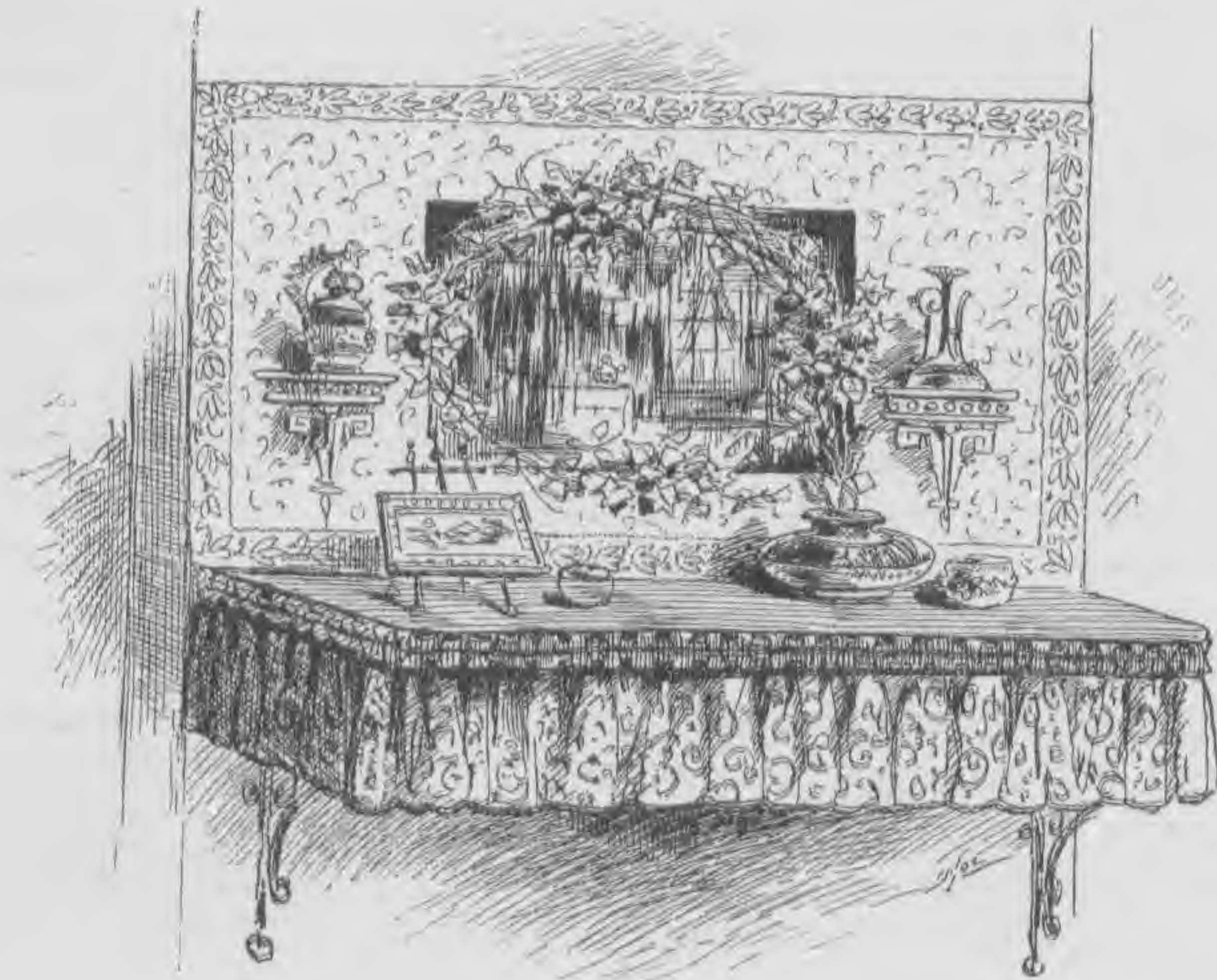
For bedrooms, most will agree with me in preferring the mantel cover of cretonne to match the easy-chair and table, or the curtains and toilet. It will not catch the dust like velvet and cloth, and it is used in the ladies' rooms of the best houses more freely than other elegant but inconvenient materials. If

your mantel has a curved or scroll edge, as most marble ones have, do not try to follow the curves in your cover, but, if you can, get a board the length and width of the widest part of your mantel, with a straight front and round corners, the edge finished in plain round molding, and cover it to lay on your mantel. A cretonne cover is made by tacking the material on plain, with a fluting five inches deep, under the edge of which a fall of deep lace may make it as handsome as you please. The lace, which should be Russian, guipure, linen crochet, or some heavy sort, should hang with slight fulness, and be sewed to the tape which holds the fluting on the wrong side. A soft manilla brush, with handle, will be found the best thing to dust mantel and toilet covers and window-sashes. A painter's "dust brush," with which he cleans all moldings before painting, is very useful in keeping nooks and corners, bed-rails and base-boards, free from sign of dust. Dust and fancy-work were never made to go together.

If you have a coal fire or furnace heat, let me advise you to have lace or fluted trimming instead of fringe and tassels, which are apt to catch dust, and will give a neat housekeeper more annoyance than pleasure.

The space over the mantel naturally is the

most decorated part of the wall, because, as we sit about the fire, the eye craves something pretty to rest on. A set of shelves the width and nearly the length of the mantel gives a good place for all the



A MANTEL WITH MIRROR AND WALL SCREEN.

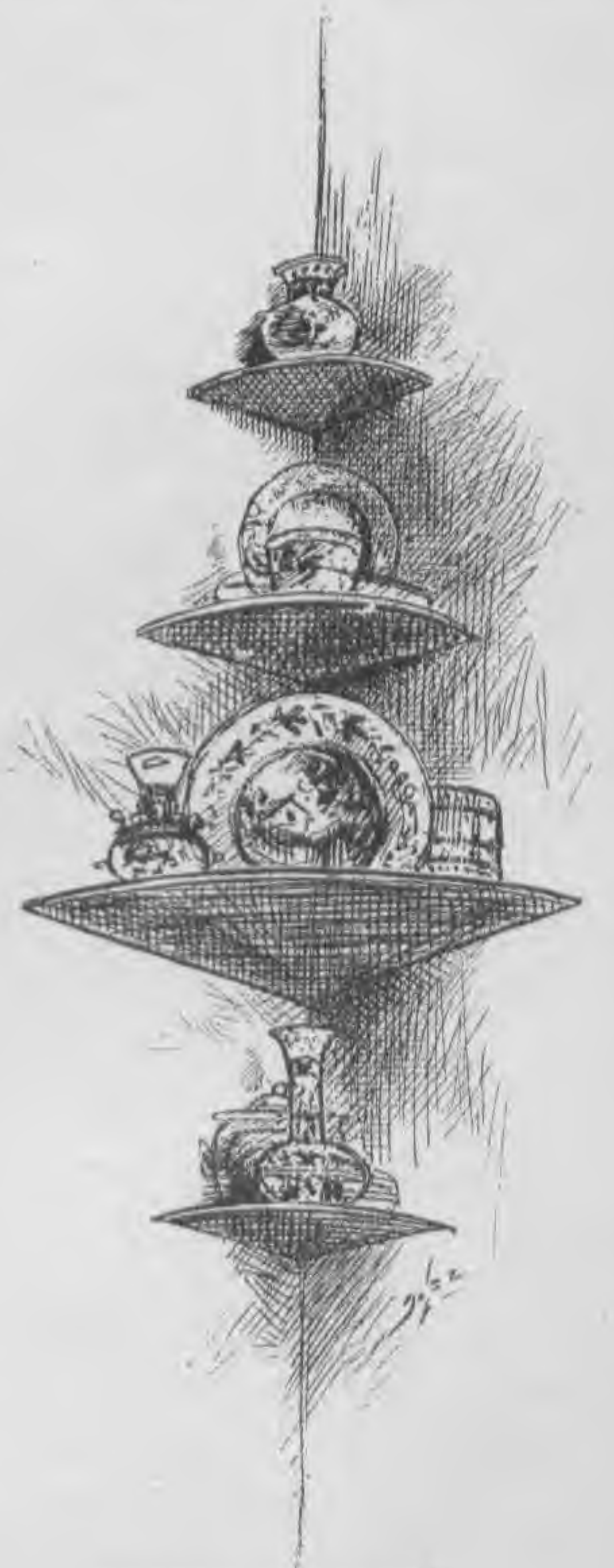
trinkets one has to display, but looks heavy, and the better style has a mirror in the middle, between two sets of shelves which are made of planed boards resting on wooden or iron brackets screwed to the wall. Your shelves want covering with dark stuff or cretonne, with a finish to hide the edge, either a fluting of pinked morocco put on with gilt nails, or scalloped tabs of *appliqué* and embroidery. This needs to be handsome and of good fresh material to look well. The better plan in most cases is to have a wall screen of upholsterers' felt or cloth in a rich color the width of the chimney, and at least a yard high, tacked smoothly across the wall just above the mantel. A dark ground like this sets off, or, as artistic people say, "throws out," the ornaments before it. Warm shades, like wine color, maroon, deep peacock or bronze, should be chosen, and if you have no other material, try a background of plain maroon wall-paper, with narrow border around the top and sides. Dark cretonne with gay figures and a brilliant border looks well stretched above the mantel. People are beginning to use cretonne and smooth chintz instead of paper for walls, as they did a hundred years ago or more.

You want a mirror for the centre of the screen, and the homeliest kitchen-glass can be made pretty in several ways. Paint the frame vermilion or India red, gild or silver it, with a narrow velvet inner border; or cover the frame with rosebud cretonne pasted smoothly on, with a fluted ruffle on the edge, which is one of the last fancies for framing mirrors in nice houses. Or put your glass in a star-frame, and cover it with plush or velvet. Or else cover

the square frame with puffed satin, and put a white-and-gold picture mat inside, which will make an oval glass in a fanciful setting. If your glass is one of the plain, old-fashioned veneer frames and oblong, do not despise it, but rub the mahogany bright with furniture polish; hang it by the side flat against the wall, with a narrow shelf under it, five inches wide, and a trifle longer than the frame. Give this ledge the gayest covering of silk, *appliqué* and bead-work you please. Then range your Christmas cards and photographs thickly about the mirror, and put a lamp-bracket at each side of the screen to hold lights when you want them, flower-vases or flowering plants at other times.

If Christmas cards are scarce, and photographs fewer, you may have the loveliest screen of all by tilting the mirror forward a little, and framing it in bushy boughs of white pine, blueberries, cedar and cones, with knots of red berries from the black alder. Keep these freshly renewed till the ivy has time to grow in a shallow box on the mantel, when you can train it on strings to make a perfect mat over the chimney-front. Nor will this take a very long time, for last winter I saw a house-ivy which had grown fifty feet since Thanksgiving. Ivy is the best ornament for a room, and the test whether its air is healthy or not; for where an ivy will not flourish a human being ought not to live.

For a bedroom, there are two words to choosing an over-mantel which may project from a deep chimney so far as to be unsightly. Corner shelves each side of a projecting mantel are the cosey, convenient things, just in reach of your hand, and taking up waste space to good use. Three-cornered shelves with rounding fronts, three or five as you please on a side, with dwarf spindle railings or Japanese fret on the edge to keep things from falling off, with a work-basket on one shelf and a flower-pot on the next, a painted candlestick and pitcher above, a dictionary and book of reference, a scrap-book and folio of ferns, an Indian basket and the shells gathered last summer at the beach, the cup and saucer which fell to your share from grand-



CORNER SHELVES.

mother's set — all these pleasant and familiar things are at home on the corner shelves by the fire. Such a place for house-plants in winter, and for field treasures of bloom and bough in spring, when branches of cherry, dogwood, and pink crab-apple blossom from every shelf out of pots and basins. Such shelves are fixed by nailing inch cleats of wood evenly to the wall each side of the angle for the boards to rest on, which must be planed and dressed by the carpenter, stained walnut color if you like for the Queen Anne spindles, or ebonized to suit the Japanese fret. The upper shelf should be smaller than the others, and sacred to the bit of china you wish to keep out of harm's way, or finished with a trophy of pine and cones, a blooming pot-plant, a cluster of blue and vermilion Chinese fans, or a tuft of pampas grass, such as the Princess of Wales loves in the corners of her drawing-rooms at Sandringham. A large shell, with some earth and a growing fern in it, suspended above the top shelf, which should be in arms'-reach, is a lovely ornament for such a nook. All the ugly old conch-shells turn graceful, with oxalis, alyssum or primroses clustering over their curled lips, and the pearly nautilus, sending up its green spray of maiden's-hair or lace fern, is choice as one can imagine. You must drill holes on the sides of the shell for the chain or picture-cord to hang it by. A drop of muriatic acid on the spot where you want to bore will make it easier to pierce the shell with a steel point.

A dwarf seat like the picture is a piece of furniture



A DWARF SEAT.

most girls will fancy, and it is not difficult to make out of a champagne basket or a shoe-box. The champagne baskets are sold at hotels and fine groceries for fifty cents, and, lined with glazed cambric or linen, are the nicest things to keep dress pieces in, or instead of small trunks. They must be well filled to support the lid, which has a cushion tied to the wickerwork, and a flounced cover of cretonne, which the picture shows better than words. The frame for the back must be the work of a carpenter, at least an amateur one, and is fastened to bars of wood, wired and riveted to the bottom of the basket. A shoe-box can be turned into an equally pretty seat, nailing the cushion to the

frame by a strip of leather, and tying on the cover, which may be any dark material, brightened by a flowered stripe of red or buff cretonne across each end, as in the picture. Such stripes, ready cut out, are ten cents a yard. The fringe is upholstering fringe, bought for fifty cents a yard, but any old-fashioned ball or twisted wool fringe can be turned to use for furniture, by working bright-colored strands in the heading, tying bright tassels alternately with the sober original ones, and adding fly strands in color—of which, more another time. Have hardwood blocks screwed under the corners of your shoe-box, and holes bored in them to receive casters, so that your ottoman will move freely. And put plenty of sweet-fern or vernal grass or lavender in the cushion to give the seat and the room a pleasant ghost of fragrance. It is healthy for the nerves and the imagination.

You will want pictures, or think you do. For my part, I prefer anything sooner than a poor tawdry picture — some pleasant reality hung on wall or bracket, such as a plume of meadow grass tied with a scarlet ribbon, a pair of bird's wings made into a hand-screen, a birch basket filled with ferns, a myrtle, which endures cold and shade, trailing from the shelf, an old hat with cardinal lining and knot of cheap roses hung up for a catchall, a piece of fine quartz or a wood carving, or some gay bags. But your pictures need not be expensive. Wood engravings, both cheap and beautiful, are common, thanks to our magazines and illustrated papers. You will find real satisfaction in some of the soft reprints from notable printings in the pictorial weeklies. Cut such a picture close to the margin line; procure a large sheet of yellowish or pale gray paper, which will take the picture and leave a wide margin; iron your engraving on the wrong side to take any wrinkles out, and paste with gum-tragacanth or *raw* flour-paste. But before you paste your print, dip it, holding by the corners, in a tub of clean water, and lay it smoothly in the folds of a clean sheet, under pressure, till it is damp, and nearly dry. This will keep it from cockling with paste. Brush it with a soft cloth when pasted on the white paper, to take out any air-bubbles, remove all gum or paste on the edges with a sharp knife or wet rag, and press the picture for two or three days. Then it will look even and smooth as if it were printed on the sheet, and you can frame it to suit yourself. I have mounted the large pictures from weekly papers in this way, on tinted paper, which were as agreeable to look at as much more expensive engravings. They answer very well laid on a sheet of pasteboard (from the cover of a large ribbon box, very likely), and the edges bound together with stout edging paper from the binder's, or with black ribbon or dark silesia.

One little thing which all girls like is a group of sconces, for candles, to fit under the glass. For these you want two, four or five clean clay pipes with stems about four inches long. Paint bowls and stems pale

blue or pink, or gild them to fancy. In a group of five, you might have the outside pair sky blue, the next two rose pink, and the middle one gilt; or the second pair blue and the odd one gilt, or left white with a tiny spray of blue forget-me-nots painted or pasted on. Bore holes slanting into the mirror frame, under the glass, or in a block just under it painted to

correspond with the pipes, tie a bow of narrow ribbon in pink or blue on the stems, and thrust them into the auger holes, with some putty to keep them firm, and you have a pretty set of dwarf holders for your Christmas candles. These painted pipes are among the fashionable notions sold in fancy shops, and are very easy to make for one's self.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

VI.

RAILROAD TRAVEL.

"The railroad has not only brought our people and their industries together, but it has carried civilization into the wilderness; has built up States and Territories which, but for its power, would have remained deserts for a century to come."—GARFIELD: *Chips from the White-House*, p. 433.

IF any one wishes to know which government has most control of travel, the answer is that conveyances by water are governed by the United States, but journeying on land is chiefly subject to the State in which the traveller is. Some persons think it would be better for the United States to make all the laws respecting journeys from one State to another, so that the laws should be uniform; but this has not yet been done. Travellers, however, are not much concerned with these great laws. They have more need to know the rules made by the companies, and the customs of travellers. These customs or usages are not exactly laws, yet it is wise to follow them; for if two persons ask a court to decide a dispute, and the judge finds there is no distinct law to settle it, he will inquire, "What is customary in such cases?" A court often treats usages of the people as forming a sort of law, if they are reasonable, convenient, and widely known. Law questions about travelling are often decided according to the usages of travellers. The best way of learning these usages is to watch what older travellers do, or to ask them what is customary. The companies must give notice of their regulations. There are various ways, as by posting a placard in the depot or car, printing the rule on the tickets, or stationing a gateman to tell passengers as they pass him what they must do.

It is important to know that the conductor is what may be called the "captain" of the train. He controls everything on the journey except the management of the engine. The ticket-seller and the baggage-man do not go on the cars, they remain at the depot, and renew their services to the next train. The engineer, with a fireman or two to aid him, man-

ages the engine, and the passengers scarcely see him. The brakemen do whatever the conductor directs, and will answer any civil questions which a passenger needs to put. The whole authority, as far as passengers are concerned, is in the conductor. He is the person to explain the regulations, and to enforce them if a passenger, after being told, will not obey.

When a gentleman having a lady in his charge reaches the station to take passage in the cars, it is usually best for him to leave the trunks in some one's care and to escort the lady to the Ladies' room, where she may sit while he makes the arrangements. There will probably be two rooms, one labelled LADIES' ROOM, another GENTLEMEN'S ROOM. These signs are a regulation of the company that ladies are to have the use of one and men travelling alone are to occupy the other; but a gentleman travelling with a lady can sit with her in the Ladies' room. In a large depot there will be many other doors with signs upon them, such as "DINING ROOM;" "SUPERINTENDENT'S ROOM;" "OUTWARD BAGGAGE ROOM." These signs are regulations to inform passengers whether they may enter the rooms or not. If one wishes to obey the rules, it is easy to judge by the sign over a door whether he may go in or not; and he may almost always be sure that a door with no sign is not for passengers. If one is "prowling around," like Bluebeard's wife, full of curiosity to go into rooms where he is not wanted, the signs will not hinder him. But the companies have the right, by law, to set apart some rooms where passengers must not go, and one who disobeys the sign and goes in may be ordered out, and even expelled by force. A person who makes noise or disturbance in the passengers' room, or smokes where the rule "NO SMOKING" is posted, may be expelled.

The next thing for the gentleman to do is to buy tickets. There is almost sure to be a sign "TICKET-OFFICE." This is a regulation that whoever wishes to ride should not trust to paying fare to the conductor, but must buy a ticket beforehand. If, indeed, a con-

ductor should find a passenger riding who had no ticket, but was willing to pay, he would take the money; he would not put the passenger off the car. But he would charge a little extra. The fare thus paid is usually five or ten cents more than the cost of a ticket. This is to make passengers careful to buy tickets. There is usually a ticket-window for ladies, opening into the Ladies' room. It is better to buy tickets before going to check the baggage, because there may be a regulation of the company—there is one in many large depots—that the baggage-master must not give checks for trunks until the tickets are shown to him. Where there is such a regulation, a passenger who goes first to check baggage will be sent back to buy a ticket. An experienced traveller will take notice whether there is a "queue" in front of the ticket-office, and if there is one, he will take his place in the line behind the last man, and move slowly up until he reaches the window in his turn. Ask some grown person to describe a queue to you. There is very seldom any need to form a queue at a railroad ticket-office: on a steamboat one is almost always formed. If a person should disregard the queue and walk up to the window at one side, the ticket-seller would tell him to stand back, and the other passengers would grumble, "Take your turn." If he persisted and made trouble he could be arrested and taken to court; and the judge would say, "You are fined for disorderly conduct. It is the usage of travellers to form a queue for buying tickets whenever there is a crowd; and persons who take journeys should learn such usages and conform to them."

The next thing in order is to get checks for the trunks. Most passengers have some small articles which they carry with them, and also a trunk, which the hackman, when he brings the party to the depot, leaves with the baggage-master. When the passenger comes he points out his trunk and tells the baggage-master whither he is going, and the baggage-master gives him a queer little bit of brass having a number and some mysterious letters stamped upon it. This is the check. If you watch a baggage-man when he gives a check you will see that he has another similar bit of brass which hangs at the end of a strap, and by this strap he will fasten this bit to the handle of the trunk. If you can compare the two you will see that the stamped numbers are the same. The shape of the check, and the letters show the baggage-men all along the road at which station the trunk is to be put off; and the number shows that it belongs to the passenger who produces, at the stopping-place, the check with the corresponding number. Baggage-men have to be very careful to keep the checks separately, for if they become mixed the trunks will go astray all over the country. And a passenger needs to keep his check carefully, for if a dishonest person should steal or find it, he, instead of the owner, can get the trunk.

The next question is about going aboard the cars. Perhaps a gong or bell will strike to let passengers

know when the car is ready. There may be a gate-man who will say, as the passengers pass him, "Show your tickets." This is a regulation which one must obey. You will almost always at way stations find a time-table posted in the passengers' room. This is a regulation prescribed by the company to govern the running of trains. The conductor and the engineer have copies of the time-table, and if they find the train is reaching the station a little ahead of time they run somewhat slower. Oftener they get behind time, and then they run faster and try to make up; but sometimes they cannot do so. In studying a time-table, remember that the time of day is a little different in different towns and cities. If the watches of the Travelling Law-school were just right by the best clock in Boston, they will be nearly fifteen minutes slow when we reach New York. Owing to this, a person may find that his train arrives sooner or later than he expected, judging by his own watch, and yet the train may be on time, judged by railroad time. In all close calculations be sure you have railroad time.

When you go to the train you will perhaps find there is a ladies' car, or a drawing-room car, but there is always a brakeman or porter ready to tell passengers about these. In ordinary cars passengers are supposed to know the rules and usages without being told. It is not wrong for one person to take the whole of the double seat, or for two persons to turn one seat over so as to face backwards, and occupy the two, if there are plenty of seats for other passengers. But no one has a right to keep more than one seat if there be any passenger who lacks a seat; when any person does this it is proper to appeal to the conductor, and he will compel the uncivil passenger to give up the extra place. Every experienced and considerate traveller watches as the car fills, and when he sees that the seats are nearly all taken he empties the extra seat so that it shall be ready for the next comer.

A very important usage of travel is that one can keep a seat by leaving an article of baggage in it. Whenever, therefore, on entering the car, you find that many seats have overcoats or valises or umbrellas in them, it is best to consider them as taken, and look for others. If an ignorant passenger should dump such a valise in the alley-way of the car and take the seat himself, the owner would before long return and claim the seat. If the ignorant passenger refused to leave it, the owner of the valise could, if he chose, appeal to the conductor, and the conductor would probably say that he was entitled to it. If the ignorant passenger would not yield, the conductor could call a brakeman, and they two would have the right to pull him out by force, and even, if he continued to make trouble, to stop the train and put him off. Conductors are usually very unwilling to do these things, but they have authority to expel passengers who disobey the rules or will not pay fare from the cars.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

V.

HAYDN AND MOZART.



HANDEL perfected the sacred cantata, thus producing the grand oratorio. Haydn improved orchestral music, and brought forth the golden-voiced symphony. He made music convey its meanings without words; to cause, as it were, the listener to see visions and dream dreams.

A full orchestra numbers nearly one hundred performers. Its instruments are: First violins, second violins, violas, violoncellos, double basses, flutes, oboes, clarinets, bassoons, horns, trumpets, trombones, bugles, serpents, cymbals, bells, drums. With these so arranged as to balance harmonious sound, the full organ and grand piano are often used, and the old-time harp sometimes appears in pianissimo or soft passages.

Orchestral music, improved by Haydn and Mozart, was made to produce most beautiful solo effects by Rossini; Paganini gave new charms to its concerted violins, and Thalberg and Liszt to its harp or piano tones. It was further advanced by the writers of music for the full military bands.

Francis Joseph Haydn was born near Vienna in 1732. He therefore reached manhood when Handel's life was in its decline. Like Handel, he was a wonderful boy. His father was a coach-maker, but was very fond of the harp. His mother had been a servant. She loved to hear her husband play the harp when she would sit knitting by his side. Little Haydn would sometimes accompany his father on an imaginary fiddle made of two sticks.

The wooden performances were, however, the way of his success. A Hamburg schoolmaster who noticed them, also found that the boy, besides having the taste and passion for music, had a voice of wonderful sweetness, purity and power, and he took him to

Hamburg to be educated. At the age of nine he had become the most admired choir-boy in the splendid church of St. Stephen in Vienna, and at the age of thirteen he tried to compose a mass.

When his voice changed in boyhood, he lost his place in the church, and became very destitute. A poor woman gave him a home in her attic. After he was famous, he provided liberally for this woman, who became as needy in her old age as Haydn had been in his youth. At this period he also was engaged to a wig-maker's daughter, and he married her after he had become the companion of princes. The woman, however, proved a scold, and they agreed to live apart, he providing for her support.

At the age of twenty-eight Haydn composed his first symphony. It was a success, and demonstrated his genius to the world. Old Prince Esterhazy chanced to hear the symphony played by an orchestra when Haydn was present. He was told that the short, dark-faced young man before him was the author of the superb composition. "What! you don't mean to say that that little blackamoor composed *that* symphony!"

"Yes, Prince," said the conductor, and beckoning to Haydn.

"Little Moor," said the Prince, "I am Prince Esterhazy. What is your name?"

"Haydn."

"You shall enter my service. But you are too short. You shall have high boots and red heels, that your appearance may correspond with your merit."

Haydn became one of the household of the music-loving family of Esterhazy. His salary was liberal, and Prince Nicholas Esterhazy became his intimate friend, and Haydn's life at Eisenstridt and in the Austrian capital lingered through many prosperous and happy years.

The fame of Mozart, the child-musician, at this time filled the world. Mozart had an affectionate nature; Haydn needed affection, and the meeting of the two sympathetic natures was the beginning of a friendship like that between a father and son.

"You and I together would not make one Haydn," said Mozart to a popular composer, who had criticised the works of the aging symphonist.

"I wish I could impress upon every friend of music," said Haydn, "the deep sympathy and profound appreciation which I feel for Mozart's inimitable music. Nations would vie to possess the jewel."

John Chrysostom Wolfgang Amadeus Mozart, the Raphael of musical art, the greatest musical prodigy

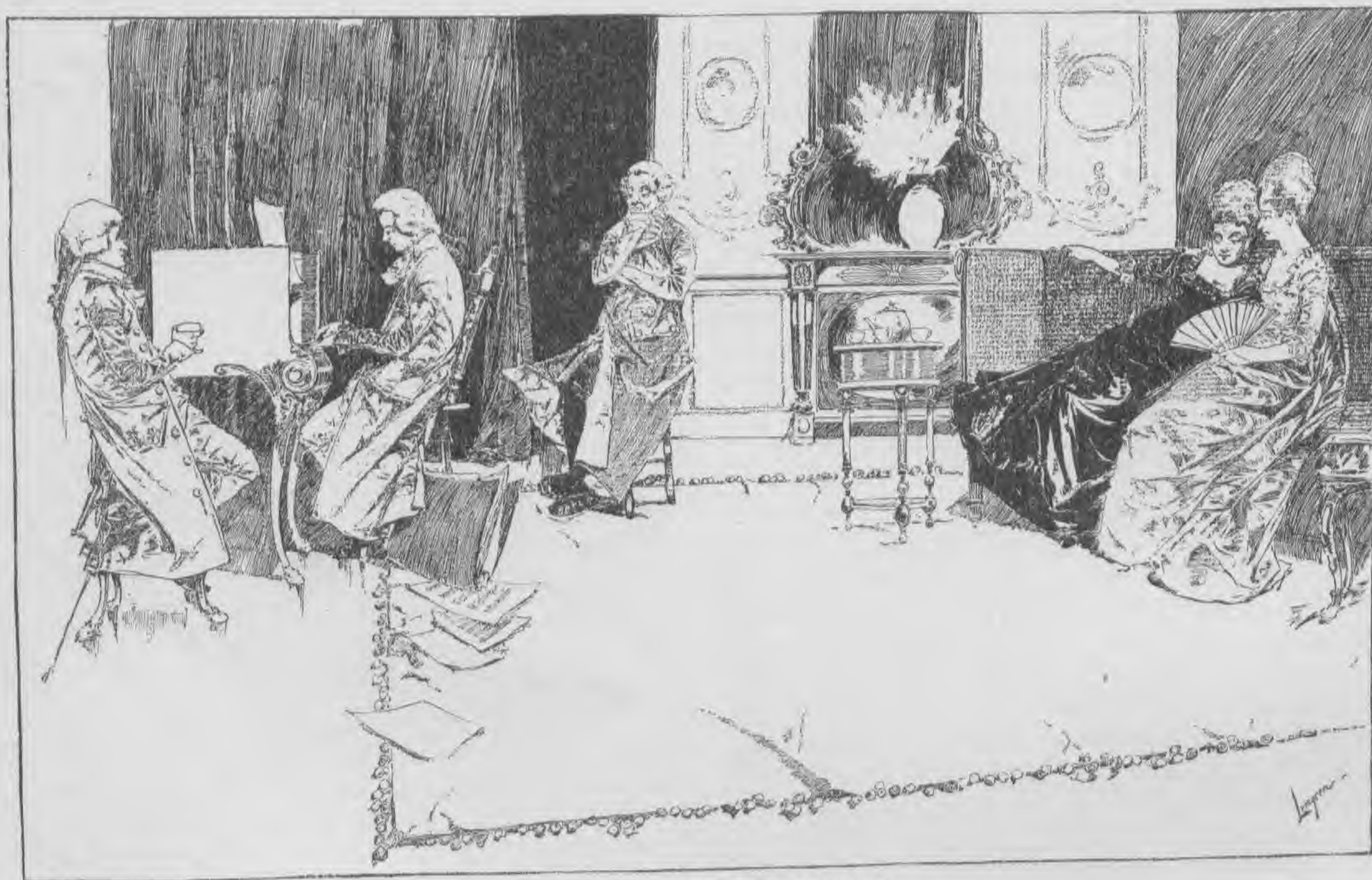
that ever lived, was born at Salzburg, 1756. He began to play the harpsichord at the age of three years. At the age of four he delighted his friends by his brilliant playing of minuets. At five he began to write music. At six he astonished the Emperor Francis I. at Munich by his masterly rendering of concertos on the harpsichord, and at seven his genius became the theme of musical circles all over Europe and of the music-loving courts.

He was a very sensitive child. He seemed to care for nothing but to practise music and to be loved. "Do you love me very much?" he would ask of those whom he himself loved. If he received an indifferent answer, his eyes would fill with tears. He was deeply attached to his father. "Next to God is

Don Giovanni, the *Marriage of Figaro*, and the *Magic Flute*.

In 1790, when Haydn was about leaving Vienna for an indefinite time, Mozart said, "We shall now doubtless take our last farewell." Mozart was then thirty-four years of age. Haydn was nearly sixty. They did not meet again, but it was Mozart and not Haydn who died in a short time after the separation.

The last days of Mozart were very sad. The valet of an Austrian nobleman came to him one day, dressed in black, and asked him to write a *requiem*, for which he promised a large price, but refused to tell for whom the composition was desired. Mozart was in ill health, and he imagined that the valet was an apparition from the unseen world, and that the



MOZART PLAYING FOR FRIENDS.

papa," he said. A discord shocked him; the sound of a trumpet would almost throw him into convulsions.

He excited the admiration of nearly all the courts of Europe, but it did not make him vain. He heard the Sistine Chapel *Miserere* at Rome, a composition which no one was allowed to produce elsewhere, or even to copy. He carried the whole composition away in his mind and played it in his own room.

He had a deep sense of religion and religious duties. "I have such a sense of religion," he said, "that I will never do anything that I would not do before the whole world. Friends who have no religion cannot long be my friends."

Such was Mozart, the author of the grand masses of the Catholic Church, of almost innumerable minuets, concertos and sonatas, and of the great works,

requiem was asked to warn him of death. "I am writing it for myself," he said. He died just after penning the last notes of this immortal work. "My task is done," he said. "The *Requiem*, my *Requiem*, is finished."

He was buried on a stormy December morning, amid snow and hail, in the burial ground of the poor, only one person following his body to the dreary and desolate place. So ended the applause of courts, theatres, concert-rooms.

The life of Haydn is full of pleasing stories. We have room but for one:

A butcher in Vienna had a beautiful daughter, and he desired a minuet to be composed for her wedding. "I will apply to Haydn," he said. His friends ridiculed the plan. But the butcher appealed to the

great composer of court music, and received the minuet. Haydn would only accept a trifle in payment; but soon after he had put the gay music into the hands of the butcher, he was surprised to hear a crowd approaching his residence. The people were gayly dressed, and among them were the bridegroom and bride. Haydn went to the balcony, when a band drew near and played his own brilliant minuet. Then the crowd opened and uncovered a strange-looking object. It was an *ox* decorated with garlands. "I have brought it to you, master Haydn," said the butcher, "in payment for the minuet."

"Long live Joseph Haydn!" shouted the people, again and again, "Long live Joseph Haydn!"

The assembly consisted of music-loving working people and tradespeople, who came to testify their appreciation of a man of genius who would compose a minuet for the wedding of one of their own number. The wedding music became known as the *Le Menuet du Bœuf*.

The composition of the symphony was Haydn's delight. In the course of his long life more than one hundred grand symphonies followed the success of the one that had made his fame and fortune. His works were hailed with delight in France, Spain and England. He was invited to England, and, as in the case of Handel, his going to London was a triumph. He was honored by lord mayors' feasts and royal visits, and associated with lords, dukes and the men of wit and genius of the time.

He returned to Vienna. It was heroic times—the armies of France were shaking the continent. Haydn loved Austria, and had written the national air, *God save the Emperor*. In 1775 he began his noblest work, the oratorio of *The Creation*. It was finished in 1798, and it carried his fame again over the world. His name was now the greatest in music. He composed *The Seasons*: then age crept on, and, full of years and honors, he died in May, 1809.

HEALTH AND STRENGTH PAPERS.

VI. WHAT SHE ATE.

BY MARY J. SAFFORD, M. D.

WHEN they came the third time, I could see a hopeful change in my little patient. There was an eager sparkle in her eyes. She did not stand, or sit, or step, in the way she did at first. She was all interest, all alertness. And some of my prescriptions had been followed. She had new boots, and they were strong, wide-soled, with low heels. She wore leggings too; and instead of a poke bonnet, she had on a soft, snug cape-hood that covered her ears with its pretty rose-lined frills, and that would protect her neck from chills and draughts in the horse-cars.

The mother gave a half-vexed little laugh as she saw me looking the child over.

"Oh, I've bought new clothes entire," she said; "and I suppose after you've done with us to-day," she added, "we shall hire a new cook, and change our grocer. But I really do believe the child's table habits are bad, and I am only too willing to be advised. She always was peculiar, and never ate anything as other children do—in fact she doesn't eat much of anything at any time, and when she does it is not at meal-time. At breakfast she is troubled with a bad taste in her mouth, and she says nothing relishes so early in the morning."

"And does she leave for school without eating?"

"Well—no, not quite. Usually I get her to take a cup of coffee, and sometimes she eats a doughnut or a cookie with it."

"You make the coffee fresh for her?"

"No—we keep it hot on the range."

"Overdone coffee is hurtful to the stomach," I said. "No one should touch it unless it is fresh-made. After two minutes' hard boiling it is mischievous. And so I am to understand that she often goes away to endure several hours of study upon the nutriment she gets from a cup of spoiled coffee and a doughnut? No wonder that she subsides into a corner of the sofa when she returns."

"I have often suggested that she should take a lunch, but she always has pickled limes or chocolate-drops with her, and she says that when there is a gnawing at her stomach a wee bite of a lime or candy relieves her."

"And sometimes I carry fruit or sponge-cake," added the patient, evidently anxious that all should be told.

"But when she comes from school, I suppose there is a good substantial meal in waiting," I said.

"Well," replied the mother, "we have noon dinners, and of course she cannot be at home; but the cook always puts aside something choice."

"Meats and vegetables and puddings are not good when they have dried in the oven an hour, any more than coffee is," said the daughter decidedly; "and there are no good coals to broil a fresh steak, even if I cared for it; so cook makes me a cup of tea, and I have some bread and butter, or cookies, with it. Sometimes, if she is not too busy, she cooks me an egg."

(TO BE CONTINUED.)

WHAT TO DO ABOUT IT.

CARRIE sends a neat page from her drawing-book, and wishes to know if I think it advisable for her to study to be an artist. It is early to say that, but Carrie, and all readers who like to draw, can practise till they gain such skill that they can *correctly draw common objects*, which is the first step toward being an artist, and is more valuable than great talent without this correctness. When you can draw your own chair or work-basket so that the sketch looks just like them, with the nicks and curves and the air of familiar objects, then it will be time for you to think whether it is best for you to devote your life to art.

DOSSIE. "How shall I mend a carved photograph frame, also a black-walnut chair, which we children broke one night jumping around?" Buy five cents' worth of brown glue, choosing clean pieces which do not smell of decayed matter, cover with cold water over night, and boil to a thick syrup. Have the broken surfaces perfectly clean from dust or grease, or the glue will not stick. Blow or brush the dust off; if soiled with handling, dip the ends in strong solution of washing soda, and brush clean. Then heat both parts to be joined, hot as possible without scorching, brush each while smoking hot with boiling glue, or dip the ends in the glue two or three minutes to absorb as much as possible. Fit the broken parts perfectly, wipe off the glue outside, tie tightly, and leave in a dry warm place three days or a week. Better have a sixpenny pair of clamps, which screw the pieces together tightly, and are useful in other sorts of juvenile work. When dry, wipe all the glue from the outside with a moist cloth, or rub off with sandpaper, and go over the whole frame with a brush dipped in boiled linseed oil, which improves most carved-wood frames.

ETHEL. You might like the new pincushions made of satin or satine to imitate a mattress, with square-bound edges and tufting done with tiny buttons or gold beads. Dark red-brown, wine color, peacock, or crimson are the best colors to last.

BROWN JOSIE. It is the best kind of an idea to keep a diary, only don't make it a record of your own thoughts and feelings, but rather of events in the family, and interesting things which come in your notice. Your feelings and ideas will alter as you grow older, till a record of them is very embarrassing to look over. But you will like by and by to have something to remind you just when you got the big Newfoundland, or when the new teacher came, and when the corner house took fire and frightened all the family, and when the boys went off on their first hunt, or the eclipse took place, or the cousins died of diptheria, or the new minister was married. Time will come when you will find it pleasant to fix your

recollections of these incidents which were the events of early days. You will want to remember many things which happened last year, in 1881—for instance, the great comet which made August nights so lovely, with its shafts of light against the dark soft blue; the strange aurora of the autumn, which some old-fashioned people imagine foretells a great war; and, most notable of all, "the yellow day" of the northeastern States, which none of those who saw it ever will forget. But by and by you will want something to refer to which will give you the exact date and remind you how the hens went to roost and the currant-worms seemed bewildered and left the bushes, and you couldn't see to read *Robinson Crusoe* in-doors. Keep a diary, by all means, writing in it not every day, but as often as there is anything interesting to put down. By the way, who will send the WIDE AWAKE an account of that "yellow day" as it appeared in Maine, another from New Hampshire, another from the Lake George region, and so on? Each telling when the strange appearance was first noticed in the day, and anything remarkable which came under his *own* knowledge. And Southern readers might send some account of the great storm off the Florida and Georgia coast last August, which was the wildest storm known by seamen since the great gale of 1801. Write briefly, and be sure of your facts, and you can't fail to add interest to your own observations and those of others.

REDFORD. You want the promise kept of telling boys and girls how to make an honest penny. Very well. I shall tell you of the basket business, which many boys of good family around Boston have taken up. A basket is stocked with needles, thread, tapes and "findings" for the work-table in general, and the boys go from door to door selling them Saturdays out of school. I don't think it is fair for boys who have fathers able to support them and give them all they need, to go into any such business, to the injury of regular dealers and merchants who have families to care for and who give employment to other persons; but there is a chance to supply little nice things not kept at the shops, which people are glad to get, and which will not interfere with any other business. It is a great thing to feel that nobody has a smaller slice of the cake because you have had yours. *Nice* sewing-silk, nice Providence yarn, curtain cord and tassels, good cheap toilet soap, extra-good pins and needles, milliners' needles, fine darners, very coarse tape-needles, carpet thread of the *best* quality, heel and knee protectors for children, to save the wear of trousers and stockings, are things not found at shops in general, and which meet a ready sale at good profits.

THE WISE BLACKBIRD.

THE CHAUTAUQUA YOUNG FOLKS' READING UNION.

DOES the Grecian hall, with the moonlit lake, and the knot of dripping water-lilies, and the big letters "C. Y. F. R. U.," which heads a certain page in each number of WIDE AWAKE, seem puzzling and mysterious to the new subscribers for 1882?

Well, those illuminated characters "C. Y. F. R. U." stand for "Chautauqua Young Folks' Reading Union," an organization which you all are here heartily invited to join, and which had its birth at the great Chautauqua Assembly of 1881.

The purpose of this Union is to unite young folks everywhere in pursuing each year a course of entertaining readings, prepared especially for them. Rev. Dr. J. H. Vincent, the world-famous friend of popular education, is the President of the Union, as he is of the Chautauqua Literary and Scientific Circle, a similar association, wide and prospering, of grown-up people; and you ought to get the October WIDE AWAKE of 1881, and read his article, "The Juvenile side of Chautauqua." The editors of WIDE AWAKE, together with the President, and Mr. Arthur Gilman, M. A., of Cambridge, constitute the committee. WIDE AWAKE is the organ of the Reading Union. Members will refer to it for all official statements and directions. It contains the Reading Course which occupies, each month, the sixteen pages following the pictorial heading, C. Y. F. R. U. The specialties of the Course for the Chautauqua year beginning Oct. 1881, cover a good range both of amusement and thought, light, fascinating labors for the hands, as well as reading, reflection and research; for particular prominence is given to "Ways to Do Things." Below is a résumé of topics treated:

MAGNA CHARTA STORIES — 12 papers.
WAYS TO DO THINGS — 6 papers for boys, 6 papers for girls.
OLD OCEAN — 12 papers.
THE TRAVELLING LAW-SCHOOL. — 12 papers.
LITTLE BIOGRAPHIES — MUSIC — 12 papers.
HEALTH AND STRENGTH PAPERS — 12 papers.
WHAT TO DO ABOUT IT — 12 papers.
MISCELLANEOUS PAPERS on Natural History, Natural Philosophy, Astronomy, Chemistry, Geology, Botany, Ornithology or Entomology — 12 papers.

In addition, the Reading Course includes the following books:—

STORIES FROM ENGLISH HISTORY, 2 vols. of the Lyceum Library, Youths' Series: No. 1, "Two Kings," etc., and No. 5, "Knights of Industry," by Samuel Smiles. (Phillips & Hunt, N. Y.)

BEHAVING: Papers on Children's Etiquette. (D. Lothrop & Co., Boston.)

THE STORY OF ENGLISH LITERATURE. (D. Lothrop & Co., Boston.)

A special club rate has been arranged for members of the C. Y. F. R. U., as follows:—

WIDE AWAKE (per year)	\$2.50
STORIES FROM ENGLISH HISTORY (2 vols.)	20
BEHAVING (regular edition \$1.00)	50
STORY OF ENGLISH LITERATURE (regular edition \$1.25)	75
	<hr/> \$3.95

All to be clubbed for \$3.00, and sent post-paid.

The whole may be ordered of the publishers of WIDE AWAKE, Franklin St., Boston, or of Phillips & Hunt, 805 Broadway, N. Y. city, or of your local bookseller. All who desire to join the Reading Union, meaning to take the Course in a thorough manner, should send their names and Post-office address for enrollment, with three 3-cent stamps for postage on the President's Annual Address, certificates, etc.—which they will receive in due time—to Rev. Dr. J. H. Vincent, Plainfield, N. J.

To those who, after subscribing for WIDE AWAKE for 1882, may join the Reading Union, the books will be sent post-paid on receipt of 75 cents, or the books and the October, November and December numbers of WIDE AWAKE, containing the first three installments the Reading Course, will be sent post-paid for \$1.00.

An excellent and enjoyable way of pursuing the Reading Course is to do it in company—to form
NEIGHBORHOOD OR LOCAL CIRCLES.

This is a simple thing to manage. You need one officer only. This one, the secretary, should be some lady or gentleman whom you all know and like and believe in, a genial person of wide reading, and one willing both to read and work the Course through with you, and to explain and illustrate all points which do not seem clear—one who has the leisure and the kindliness to spend a good deal of time upon you.

THE WIDE AWAKE POST-OFFICE.

HOW TO FIND THE RIGHT ONE.

In almost every town there is now a "C. L. S. C.," a Chautauqua Literary and Scientific Circle; if you do not know whether there is one in your own town, you can write to the Secretary of that organization, Miss K. F. Kimball, Plainfield, N. J., enclosing a postal card, and she will inform you, and probably she will give you the address of some member. In these C. L. S. Circles you will always find some one who will take charge of you and help you as you may need; and you can meet at one another's houses as often as you all decide is best. If there are but two of you to begin with, you two Chautauqua Young Folks can have a good time and help each other in talking over the portions of the Course you have read; and the whole or parts of the work described as yet in "Ways to Do Things" can be taken to the Circle if you so choose. If you can procure the books, you will get greatly interested in looking up the matter suggested in the notes appended to the "Magna Charta Stories," and in reading books of sea-travel in connection with the "Old Ocean" series. You surely should use a globe and maps throughout both series.

WHO WILL HELP YOU.

If you are not near libraries, it is probable that your minister or your teacher has some of the books mentioned, and will lend them to you. And you can find a great deal in the newspapers bearing on all the topics of the Course.

A GOOD WAY

for a Local Circle, is to buy some large scrap-books each year, and apportion space to each subject of the Course, and then paste in the scraps and extracts which the Circle collects. You can save cuttings for

some time, and then paste systematically and logically. Include good illustrations whenever you can get them. These scrap-books will form a most valuable little library which older and wiser folks than you will set a value upon.

You will too, as a Club or Circle, have many opportunities for research and experiment, and may add—who can say how often—something valuable to Science or Natural History. For instance, you who form Neighborhood Circles in the country, cannot but enjoy reporting your own observations of the animals Miss Harris writes about in "Door-yard Folks;" and you can also write out for the scrap-books the anecdotes you gather from the old farmers and from the big boys who hunt and trap.

Should you be in doubt on any point, and wish to ask a question,

THE AUTHORS OF THE ARTICLES

in the Reading Course will correspond with you. You can send a letter to any one of them in care of the publishers of WIDE AWAKE, Franklin St., Boston; and any of you can write to "The Wise Blackbird" in the same way. A knowing personage this Blackbird is, specially appointed to answer the thousand-and-one questions young folks like to ask about dress, behavior, and various points in every-day living.

You can easily make your Reading Union an important thing in your neighborhood, on your street, in your school, so that it shall at least soon number on its roll as C. Y. F.'s all your special friends.

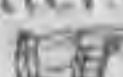
All secretaries of Local Circles are requested to send their names for registering to Miss K. F. Kimball, Plainfield, N. J. Secretaries, on application to her, will be furnished with one another's addresses for purposes of correspondence, consultation, etc.

THE WIDE AWAKE POST-OFFICE.

Those who wish their letters published in the WIDE AWAKE Post-office should direct their letters thus: EDITORS OF WIDE AWAKE, 32 Franklin St., Boston, Mass.

Those who wish to ask questions of somebody much wiser than persons of their own years, should address their letters thus: THE WISE BLACKBIRD, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

Those who are pursuing the Reading Course of the C. Y. F. R. U., and would like to ask questions about any article in that course, may address their letters to the author of that article, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

 All who wish to join the Chautauqua Young Folks' Reading Union can do so by sending their names with three three-cent stamps to the President of the Union, Rev. Dr. J. H. Vincent, Plainfield, N. J.

The boys and girls interested in woods-lore, who read "The Story of Maple Sugar" in this number, will like to know that the author says, in a note to the editors:

I think the fact of the red squirrel's biting the bark of the maple and sucking the sap is not generally known; but it is a fact which I and many others can vouch for.

He also says:

THE WIDE AWAKE POST-OFFICE.

All the Indian words are genuine Abenaki. I have most of the names from intelligent Indians of St. Frances; the others from a vocabulary in use among them.

A teacher writes thus from Oregon about the original music given in WIDE AWAKE for the last two years:

I am teaching the silvery WIDE AWAKE songs to a new school. My school for the past two years has been voted by every person to be one of the "most beautiful and successful primary schools in existence." I know that there was a sensitiveness to true melody, to art forms, and to beauty of all kinds, greatly owing to the presence of WIDE AWAKE in my school-room. The exercise songs are all beautiful, some of them too artlessly sweet to be introduced to uncultured little classes, but nearly every one available in a trained school. A friend of mine used to say last year that it was worth a walk every morning to see my school opened with the calisthenic exercise, march, the WIDE AWAKE Manners Song, and, last of all, the clear-chanted prayers.

This year praises and thanks come pouring in in a most gratifying manner for the choice original music to which the best of Boston's eminent composers are setting the sweetest verse of the English poets. Mr. Elson's music for Shelley's *Skylark* in the February number is simply exquisite when sung by fresh young soprano voices; and we predict that Miss Mulock's *Mill Song* will be a standard favorite among school songs. The music is by Mr. Chadwick, the musical conductor of the Greek play of *Œdipus*.

Another teacher writes as follows from California:

I noticed in December number that prizes were given for best specimens in drawing and designs. I am trying to interest our pupils in the art, and think the article referred to one of the greatest incentives, and just what we need here, as all our local papers are opposed to drawing being taught in our public schools.

A certain U. S. N. officer, Commodore W——, who, by the way, is one of the most enthusiastic readers of WIDE AWAKE, lays the following mathematical statement before the young folks, as a sort of interesting puzzle. The members of the C. Y. F. R. U. may take it with them to the Local Circles; and perhaps the commodore will kindly explain the magic next month should none of you reason out the matter for yourselves and send the explanation to the others through WIDE AWAKE. He says:

Take any number you please, consisting of any number of figures you please. Write the same backwards, making the last figure of the first number the first of the reversed number, the figure before the last of the first number the second of the

reversed one, and so on, so that the first figure of the first number will be the last of the reversed number. Subtract the lesser from the greater, and multiply this difference by any number you please. From the product rub out one figure, provided it is not nine. Add together the remaining figures as if they were all units, and write down the sum. Add together the figures of this sum in the same way, and repeat this operation until the sum is expressed by a single figure. Whatever this figure lacks of 9 will be the figure rubbed out; for instance, if the final figure be 7, the one rubbed out was 2; if the final figure be 1, the one rubbed out was 8; if the final figure be 9, the one rubbed out was 0.

This may be made an amusing mathematical puzzle, especially where many are engaged in it. The one propounding the puzzle to the others is not to see or know the numbers selected (except that the final number shall be reported), which will be different with each individual; yet the result in each case will be accurate.

The boys and girls, especially the girls, already show in their letters a disposition to be helpful, just as the Postmistress invited them to be in her January chat at the Office window. Soon or late, very welcome to some one—more's the pity!—will be Lillie's way of curing a felon:

CHICAGO Jan. 18, 1882.

DEAR WIDE AWAKE:

I want to tell all the boys and girls of an excellent cure for a felon. Dry thoroughly some common salt, coarse or fine. Bind this on the felon, and keep it wet with turpentine. If taken in season, this will kill a felon in twenty-four hours. I had a felon that had run for two or three days, which I cured in the manner described above. This remedy leaves the finger as shapely as it was before the felon appeared. A felon begins with a prickling sensation, and a small white hard spot appears. Unless checked, this spot grows in size and painfulness.

LILLIE H.

Miss Mary West in the January WIDE AWAKE asked for a receipt to make chocolate creams that would not be sticky; and if we publish all that are sent, and she tries them all, she will certainly need to "give a party" up in the little cooking kitchen to consume the pans of sweeties.

VIRGUA, Jan. 6, 1882.

DEAR WIDE AWAKE:

I was so glad to see the Post-office opened again, that I thought I would write at once.

If Mary West will try this recipe for chocolate creams I think she will find it good. I took it from the Buckeye Cookbook, and I have had good success with mine. Two and one-half cups pulverized sugar and one-half cup cold water. Boil four minutes; place saucepan in cold water and beat till cold enough to make into little balls. Melt one-half cake of Baker's chocolate, shaved fine, and roll the balls, when cool enough, in it. This makes eighty delicious drops.

I have the "knitting craze" this winter, and make a good

THE WIDE AWAKE POST-OFFICE.

deal of lace. I have some very pretty patterns, and have made some with linen thread, zephyr, and embroidery silk. I like the thread best to knit, but the silk is the prettiest.

I enjoy the C. Y. F. R. U. papers very much; the last article on "Health and Strength" gave me some good hints, and I shall be glad to learn some good remedy for round stooped shoulders. I was known as "Granny" for over a year by two of my cousins, and sometimes I hear it now from schoolmates.

"Nellie's Footies" is such a cute little piece! I know a little girl who is very fond of poetry, and she has two poems written for her own special benefit; one by a real poetess whose books every one has seen, and the other by her mother, who writes charming things.

Your friend always,

EDITH.

MATTAPAN, Mass., Dec. 31, 1881.

I am a girl thirteen years old. I am very much interested in cooking affairs. I cook every Saturday. I can make cake of different kinds, pies, doughnuts, bread, puddings, and cookies. These last I never have good luck with. I always get them too hard. Could any of the WIDE AWAKE girls give me a good recipe for cookies? I can make different sorts of candy, such as molasses candy, chocolate caramels, chocolate cream-drops, lemon candy, etc.

Here is my recipe for chocolate cream-drops: For filling, take two cups of sugar and half a cup of water. Boil five minutes, setting the kettle into another kettle of cold water, stirring it all the time. When cool enough to handle, roll in little balls and put on a buttered tin to cool. After this, take four squares of chocolate, placing in over the teakettle to melt. Drop the balls of filling into this chocolate till they are covered; then put on tins to harden. This quantity will make about fifty drops.

LILLIAN B. BLAISDELL.

P. S. — I forgot to say I don't like sugar cookies, and would rather have a recipe for molasses cookies.

Take half a cake of unsweetened chocolate, grate and set over the teakettle; while hot, drop in the cream moulds, which are made of two cups of sugar and half a cup of water; boil three minutes; after it begins to bubble remove from the stove, and flavor with vanilla, stir until cold enough to make into moulds; after the chocolate is added, put them on buttered paper to harden.

ANNIE M PAINE.

EVANSTON, Ill., Dec. 31, 1881.

I'm an old girl to write to your Post-office, but I just want to tell Mary West how to make her chocolate creams so they will be nice. She puts too much water in 'em, and don't stir fast enough when she takes the sugar off the stove. My recipe is: To one pound of powdered sugar, six big table-spoonfuls of water, flavoring to taste. Set on the back of stove till melted. Then set where 'twill boil, and stir to keep from burning; trying meanwhile, as for molasses candy, in water. The *moment it threads*, set tin pan in a larger pan in which is cold water, and stir *like fun*. If it sugars, it has lacked attention, boiled too long, or was not stirred fast enough.

ELIZABETH CUMINGS.

I saw that one of the WIDE AWAKES wished for a recipe for making cream-candy, and thought I could send a good one.

Put one cup of granulated sugar in a bright tin basin with just sweet milk enough to wet it; allow the mixture to boil five minutes. Take from the stove and set the basin in cold water, and stir rapidly until creamed. Make into shapes and dip into melted chocolate.

ESTELLE FIELD.

Here is a recipe for chocolate creams that we have tried and like very much. Follow the directions exactly, and you will have no trouble: Take half a cake of unsweetened chocolate, grate and set over the teakettle; while hot drop in the cream-moulds, which are made of two cups of sugar and half a cup of water; boil five minutes; after it begins to bubble remove from the stove and flavor with vanilla, stir until cold enough to make into moulds; after the chocolate is added, put on buttered paper to harden.

I'm a little girl ten years old, and I send you a poem I composed about my pet doves:

Five little balls of feathers,
Pearl and gray;
Feet that run in all weathers —
These are my doves gay!

Feet that are red as cherries,
Trim and neat;
Bills that will pick up berries,
Just as dainty and sweet!

Cooing and tending babies
All the year —
These little pretty ladies,
To me are very dear.

MAUDE S. ANDREWS.

SALEM, Mo., Jan. 14, 1882.

DEAR WIDE AWAKE:

This is the fourth year I have taken WIDE AWAKE, and I think it is the best magazine I ever read. I am a member of the C. Y. F. R. U., and think it is a very good society. I think the pieces in WIDE AWAKE this year are going to be the best we ever had. I judge from the start.

There are about twenty-five hundred people in this town, but a great many of the business houses in this town were destroyed by fire the 21st of November. We have a good school here. There are about four hundred and forty pupils in our school. There have not been but three snow-storms here this winter. There is only one railroad here (a branch of the St. Louis & San Francisco).

I am ten years old, and have a dog about that old, that I have had ever since I was a baby. Next week is examination week. Some scholars dread it, but I don't; and I don't think any one else that has studied does.

I am collecting cards. I have about one hundred and fifty. I have a nice little library, histories, lives of great men, and a great many other useful and interesting books. I am going to have my WIDE AWAKES bound. I like to see so much interest in writing letters.

Yours respectfully,

E. LEE CLARK.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

VII.—TWO IMMORTAL NAMES.

BY LIZZIE W. CHAMPNEY.

ONE spring day nearly five hundred years before Christ, a Greek boy and girl stood earnestly talking before the palace of the King of Sparta. The girl was Hervina, one of the maids of honor of the wife of the young King Leonidas, and the boy was her brother Ephialtes, one of the king's favorite pages, a handsome youth and an expert in athletic sports. He was as ambitious as he was handsome, his ruling motive an overweening fondness for praise. The Lady Gorgo, the wife of King Leonidas, sometimes shook her head and said she feared Ephialtes was too ambitious, for his desire of excelling made him unscrupulous of ways and means. But Leonidas patted the shoulder of his favorite, and said that ambition and love of praise rightly directed were good steeds if held in with the rein of principle.

"The Persians are really upon the march," he exclaimed; "Xerxes commands in person the land force, which is going around through Asia Minor, while a navy of innumerable ships follows him by sea."

Hervina turned pale. "He means to avenge his father's disgrace ten years ago at Marathon."

"Ah, didn't the Athenians whip him well there!" exclaimed the boy. "I hope we Spartans will do some of the fighting this time. A congress of the rulers of all the states of Greece has been summoned to meet at Corinth to concert measures of defence. Leonidas is at this moment bidding adieu to the queen. He wishes to reach Corinth with all despatch, and has chosen me to conduct his chariot, for he knows no one can better manage his Thessalian horses. Mark me, Hervina, I go a simple charioteer; but when this war is over my name shall be famous. I have consulted the oracle, and have received the response that of all the Spartans who march out, the names alone of Leonidas and Ephialtes shall be handed down to posterity."

As he spoke, a groom led up the champing horses

and gilded chariot, a curtain was withdrawn from a portal of the palace, and Leonidas came down the steps dressed in armor. He motioned to Ephialtes, who took the reins and leapt gracefully to his position. Then Leonidas mounted, waved his hand to the Lady Gorgo, and the chariot rolled away.

Then came a weary waiting-time, varied by messages which brought dismay. Now they heard of the advance of the Persian fleet, of the sacking of towns and cities, and once or twice hurried missives came from Corinth from Leonidas. One ran as follows:—

"I am consumed with impatience," Leonidas wrote, "to begin hostilities at once, to march forward with my brave Spartans to meet the foe. Instead of this, I find myself involved in argument and conciliation, in the persuasion and threatening of our brother rulers to undertake this war. The greater part of the congress are now so terrified by the approach of the Persians that they are for sending Xerxes at once a present of earth and water in token of our submission to him. I am no orator or statesman, and all I could do in answer to such dishonorable proposals was to pour out my soul in wrath and indignation. Fortunately the skilled general and leader, Themistocles, is one of the Athenian delegation. His patriotism and bravery equals my own, while his prudence and wily power of governing men and making all things subservient to his will is something at which I admire and wonder. He works night and day, and keeps four scribes writing constantly, demanding help from Crete, Sicily and the other island allies of Greece; making requisitions of supplies, moneys and men from every state; numbering the army, fitting out the navy, reconciling enemies, encouraging the cowardly, bribing the avaricious, tempting the ambitious. I admire the man, but his work is not my work, and I long for fierce fighting. He has promised me that I shall lead in the first decisive action. I trust that all will soon be arranged and that we shall meet the enemy in Thrace. I commend myself to thy prayers.

"LEONIDAS."

This letter was bought by Ephialtes himself.

"I have received an important mission," he said. "Themistocles has appointed me a spy, and I am on my way to the Persians. I shall discover all I can and return with information for the congress."

Ephialtes paused with them for a hurried meal on his return from his mission. His mien had changed. His overweening confidence was lost. He had sprinkled dust upon his head, and his face was blanched with terror. "We are lost!" he cried; "the whole population of Greece would be as nothing to oppose to the formidable host approaching. Xerxes has gathered ships by thousands, men by nations. I had scarce come within the lines before I was detected and brought before the king. I felt certain that I was condemned to death. But no: he ordered one of his soldiers to go with me throughout the army and assist me in numbering his hosts and in pointing out the vast preparations which he had made for this war. After this was over he gave me a safe conduct to return and report to those who sent me."

The message of Ephialtes was received bravely by Leonidas. "Let me go," he besought of the congress, "and teach this would-be conqueror that it is not the multitude of an army that counts, but its valor."

"It is indeed time," replied Themistocles gravely; and the command of the army was at once voted to Sparta. "I will take seven thousand of the allied forces," said Leonidas, "with three hundred of my Spartans, and we will advance to the defence of the frontier from the land force, while do you plan for the reception of the navy ere it reach Athens." The Pass of Thermopylæ, a narrow defile through Mount Orta, with craggy mountains upon the left and an impassable bog upon the right, was the place chosen as a point of defence. It was the only way from upper into lower Greece (you can find it on your maps between Thessaly and Locris), and it lay in the direct route of the Persians. On his way to this position Leonidas paused to urge his wife to retire with her maidens to Corinth, where they would be safer than in the north of Greece. He left Ephialtes to escort them, and, gathering his chosen warriors, hastened on to Thermopylæ.

On their way southward Hervina noticed that her brother had grown sullen. She understood his discontent; his eager spirit chafed at being sent back with the women, instead of being allowed to share the exploits of the warriors.

The Lady Gorgo, gathering together her women and her jewels, assigned to Ephialtes the guard of the rear of her little train. The second day he lagged behind more and more. Hervina drew the rein of her milk-white palfrey and waited until he came up. Their companions had just disappeared around a turn in the road. Ephialtes looked up and saw her standing there alone, regarding him with sympathetic, questioning eyes. Seizing her palfrey's rein, Ephialtes struck spurs to his own steed and galloped swiftly toward the north. At night they slept under the open sky, and by day they pursued their way steadily

toward Mount Orta, whose steep sides they climbed by a lonely and deserted road. Hervina never doubted that their destination was Thermopylæ, but when they reached the summit of the mountain they found the place, though suited for a fastness, only slenderly guarded by a small band of Phocians.

"We seek Leonidas," said Ephialtes to the soldier who barred his pathway. "Below," replied the soldier; and he pointed to a somewhat wider pass in the mountains below them, where, with the barricade of an ancient wall in front, the marsh formed by the overflow of the hot springs on their right, and the precipitous cliff down which Ephialtes now looked upon their left, the followers of Leonidas were even now engaged in battle with the Persians.

Ephialtes turned and looked toward the west. The camp of the Persians with its myriad tents filled all the valleys, and their foraging bands were discernible collecting cattle and prisoners from a little hamlet on the mountain-side.

"Why has not Leonidas more heavily garrisoned this pass?" asked Ephialtes. "The Persians could easily swarm up that path and overcome you."

"There is a good road from here to the Hot Gates; we have only to fall back, follow this ridge downward, turn to the left, and find ourselves safe in the rear of Leonidas."

"Yes, but the Persians could follow—then Leonidas would be hemmed in on every side."

The soldier shrugged his shoulders. "Mars forbid that any one inform the Persians of the path leading hither," he replied. Further conversation was suspended as they watched the attack upon the Spartans at the Hot Gates.

Huge rocks were rolled down upon the Persians; but their front ranks were driven forward by those behind, and again and again pressed to the onset, only to be driven back with slaughter.

"He has conquered for to-day," exclaimed Ephialtes. "That general with the glittering helm is Mardonius; he fought at Marathon ten years ago; he knows the temper of our Greeks—see, he is trying in vain to rally his men. But they retire, while Leonidas has respite to prepare for a fiercer struggle. Exercising in the plain below is the Immortal Band. See the gleam of the gold and silver pomegranates at their lance-heads! Should they be ordered to charge, Leonidas would have to surrender."

The Phocian soldier smiled grimly. "You know more of the Persians, my fine youth, than of Leonidas," he said scornfully. "Yonder Immortal Band is even now upon the march—and you shall see them flee. Leonidas had hard fighting all day yesterday, and conquered. He is holding his own to-day. He will never surrender."

The tide of battle rolled more fiercely than before. The Immortal Band fought well; many fell, but none turned to flee. Once the followers of Leonidas gave way and fell backward, and the Persians poured in through the gaping wall. But the disaster was only

a feint; the Spartans waited until goodly numbers had swarmed into the trap, and then sprang forward and massacred all, hurling the dead and dying into the bog. At length, the Immortal Band fell back. The attack was ended for that day.

"He has conquered!" murmured Hervina: "surely the Persians can make no fiercer attempt."

"Let us hasten by the road they have shown me, to Leonidas," said Ephialtes, hurriedly.

They rode on for some distance in silence. The road made a long detour, and at last Ephialtes halted. "Hervina, if we tie our horses in the goat-herd's hut yonder we can climb down into this ravine and follow it, and so reach Leonidas more quickly than by keeping to the regular road."

Within the hut where they fastened their horses they found several sheepskins.

"We shall attract less attention, should we encoun-

carried upon his head a heavily laden golden vase.

"Who are ye?" exclaimed the strangers and Ephialtes in the same breath. "I am a simple goat-herd," replied Ephialtes.

"And I," said the foremost stranger, "am Hydarnes, a herald sent by King Xerxes to the Spartan king."

"But your back is turned to his fortress," said Ephialtes.

"Yea," replied the other; "for I am returning from a fruitless quest. My king, hopeless of storming his stronghold, had written him that if he would permit the Persians to pass, he should reign unmolested in Sparta under his own royal protection."

"And Leonidas refused this offer?"

"Yea, and this goodly golden jar of jewels which it is now my toilsome lot to bear back again over this weary way," said the second Persian.

"It matters little," added the first: "we shall



AT THE SECRET PASS.

ter Persians, and also be better able to clamber, if we change our court clothing for these sheepskins," suggested Ephialtes.

Clothed as goat-herds, they proceeded on their way. They reached the valley in safety just as the moon rose, and cautiously went forward through the twisted olive trees, looking for some path by which they could gain the Hot Gates. Suddenly, from the fantastic shadows, two men appeared before them, while a small squad of soldiers followed—all Persians. One of the men held a headless spear, to which was affixed a white pennon; the other

starve them out in the end—they are not provisioned for two weeks longer; but it chafes his royal highness to be thus stopped upon his march."

"How think you would Xerxes reward that man," asked Ephialtes, "who would show him a speedy manner of storming the citadel of Leonidas—show him another pass across the mountains higher up, dominating their stronghold, and guarded by but a handful of men?"

"Know you of such a pass?" asked the Persians eagerly, while Hervina, uttering a cry of despair, clutched her brother's arm.

"If Xerxes will make me the same offer which Leonidas has refused, I will show him a secret path by which he can take his enemy."

Hervina threw herself upon her brother in an agony of grief and shame; but he shook her off, saying:

"My own welfare and fortune are more to me than that of Leonidas. Go to the cave of the goat-herd and there await my return." Then, following the lead of the Persians, he disappeared.

Hervina stood thunderstruck. Then suddenly a wild hope kindled in her breast. It was not too late to warn Leonidas, not too late for him to retreat. With reckless leaps she climbed down the steep mountain-side, clinging to projecting bits of rock where even a goat would not have ventured.

She remembered joyfully how she had often outstripped the other Spartan girls in foot-races, and her training stood her in good stead now. She reached Leonidas just as the Persians set out on their march for the upper pass.

"It is certain death to remain," said the Spartan king as he looked at the frowning cliff soon to be held by the foe. "I order the seven thousand sent me by the allied Greeks to retire, bearing little

Hervina with them—she must be saved."

"Come too," pleaded Hervina.

"Nay, little one, I have an example to set to Greece—a lesson to teach the Persians. They must know that Leonidas and his three hundred were not afraid to face three millions and certain death. The post will be stormed, but it will not be deserted."

On the next day Leonidas and his brave Spartans fell. But the example and the lesson were not wanting. Xerxes learned for the first time of what stuff patriots were made, and the knowledge unnerved his arm for further effort. The death of their countrymen fired the other Greeks to emulate their valor and avenge their massacre. At Salamis, Themistocles dealt a death-blow to the Persian navy, and Xerxes with his shattered army fled, while the defeat of his general Mardonius at the battle of Plataea closed the war.

Ephialtes died a miserable outcast on Persian soil, realizing at last, let us trust, the meaning of the ambiguous oracle, and that while the name of Leonidas would be rendered immortal by his bravery and willing death for his country, his own would be handed down to endless ignominy and disgrace.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

VI. — "SHADOW-TAIL."

IF you will go to that indispensable book, the dictionary, and look up the derivation of the word "squirrel," as I did, you will understand why some writers speak of him as the "shadow-tailed." It is derived from two Greek words, as you will see, and the Latin for it is *sciurus*; and it applies to the squirrel tribes in general. In the present case I mean the flying squirrel; and is it not a pretty name for him?

One of the lovely tails is lying right here on the paper on which I am writing. It belonged to a flying squirrel, and came off (he was already dead) while a humane child was trying her best to get him out of the mouth of a cat. It is not quite three inches long, and is perfectly flat; an inch and a half broad where it joined the body, and grows narrower towards the rounded extremity, so that it bears some resemblance to a tiny gray fan. The filmy fibres of oh! such delicate fur, grow from a stiff elastic cord, which is a veritable backbone, as strong and yet as pliant as a strand of whalebone. I suppose that the shape and flatness and smallness and lightness are all just exactly what they should be, and have not a little to

do in buoying up him when he sails off into the air. If it had been made round like the brush of a fox, what an encumbrance it would be! And if it were long and plummy and curving like the tail of a gray squirrel, the wind would take him, and whirl him around, and upside down, and perhaps blow him away. Indeed, in either of those cases he would not be a flying squirrel at all. It just helps him to navigate his small craft, to steer by; and with its aid he manages himself as easily as a fisherman does his boat.

Just here I shall be under the necessity of contradicting myself; for haven't I said that the mole has the finest and softest fur in the world? And now I say that the flying squirrel has! You may have the opportunity yourselves of comparing the two lovely, silky coats; but you must do it by the help of a magnifying glass. Every family of boys and girls needs one in order to get a more correct idea of the smaller animals, as well as to see what wonders there are in the structure of insects and flowers. It is like having a new world revealed to you.

The flying squirrels are docile little creatures, and love to be petted. They are also very fond of one another; and in the winter they often have a co-

operative plan of housekeeping which works more harmoniously and successfully than any human organization of the community kind. They must have the most lovely dispositions; for nobody ever heard of a quarrel or jar in one of these numerous households. A man told me that he had counted about forty of them in one of their winter retreats, and that they always seemed to be in the highest enjoyment of life and their own home society.

He and two or three companions were "chopping" in a piece of woods, and came to a hemlock whose top had been broken off by the wind about twenty feet from the ground. At that place the wood was sound, though cross-grained; but further down there was a hole, and for three or four feet at the base the trunk proved to be hollow. They rapped on it, and out popped the head of a flying squirrel, and another, and another. Then four or five ran out and up the bark and over to the branches, where they sat and eyed their visitors a few moments, and then feeling assured that no harm was meant, they frisked and gambolled and chattered; and on pleasant days they would come out and have a good time in the sunshine. The men bored auger-holes in various places, and amused themselves by peeping in from day to day to see what they were all about, the forty or fifty of them, when they were at home. Their quarters were spacious, fragrant with the resinous odor, snug, clean, and lighted by loop-holes which were as convenient as the same style of apertures in old feudal castles. And their bed was of warm dry leaves, as cosy and comfortable as creature need ask for.

The wood-choppers, who know so many of the secrets of the trees, told me that if, in going through almost any piece of woods, a person would rap on the bark of some of the hollow trunks, flying squirrels would be likely to peep out. So yesterday I set forth to make a round of calls on these sylvan neighbors. I tapped and I tapped: then I knocked loudly; on gray beech and on yellow birch. Nobody came. But I comforted myself in my disappointment with the thought, that being such a warm, bright summery December day as was not likely to come again, the squirrels had found, the same as I had, that it was too pleasant to stay in-doors, and were all abroad. A rabbit, snowy-white except his feet, was scudding along ahead of me; and I got right into a convention of more than two hundred crows (I counted), who were all vociferating together about the *cause*!—CAUSE!—CAUSE!

I have read that the flying squirrel "does not build nests of leaves among the branches, like the true squirrel;" but all general rules have their exceptions. I knew of one that did, and we will make the most of that. Some boys were prying about, as country boys are apt to be doing, and in the top of a small pine tree, close by the house, which was on a back road, they saw—boys' eyes are sharp—what looked like a heap of dry leaves. Now I have many times seen just such a thing and wondered what it

meant; and the next time I shall do just what they did (except the destructive part), make an examination. One of them saw a squirrel go into it; and he climbed up, but there was nothing that he could discover except leaves: these he pulled apart, finding nothing, and came down. Meanwhile, even while he was poking about among them, a litter of young ones had fallen down through the bottom. The boys, much troubled, hunted about on the ground and picked up five of the "cunningest, neatest, softest little flying squirrels, that had not got



their eyes open."

And now they were more troubled to know what to do with them. They could not be put back, because the nest was broken up; and the tiny things were so young it was of no use to try to raise them. What a piece of mischief these boys had been and done without meaning to! They concluded to hide themselves in some bushes, and keep

quiet and watch; and soon the mother came, smelt all around under the tree till she found her little ones. Then she took one by the nape of the neck and went up the tree with it; but seeing that the nest was spoiled, she sailed over to another tree, a birch, that had a hole in it, tucked her baby in out of sight, and then went back and got the rest, one at a time.

So two questions were settled; one about the place of building, and the other about the way in

which squirrels convey their young from place to place. As a cat does her kittens, to be sure.

Another flying squirrel had sweet and roomy quarters in a sap-bucket. The buckets had been packed carefully away in the top of the sap-house after the maple-sugar season was over, and there was no further use for them till spring came round again. At that time, one of the same boys was sent to take them down and wash them, and he found in one a lot of leaves, and a flying squirrel appeared. He put his hand in and grasped the feet, but the startled creature bit right through one finger, and his captor dropped him. In the excitement and smarting which followed—especially the latter—the whole family escaped.

Having such remarkably bright eyes, it certainly is strange that this species of squirrel prefers being abroad by night and taking its naps in the daytime. One of them came in at the open kitchen window of a neighboring house, on a summer evening, and went dashing about among the tin dippers and basins, making such a disturbance that at last somebody was sent with a light to see what the matter was. By that time the intruder had become quiet on the ledge over the door, and nothing was found which could account for the clatter and din. There was no mouse, no rat, no cat—nobody; and the search was given up. Then the sounds began again, and the rogue was found—so small a rogue for so big a noise! At first he trembled with terror, and his beautiful lustrous eyes dilated and looked up as beseechingly and pathetically as the eyes of a half-grieved, half-frightened child. Then he allowed a hand just to touch and fondle his soft fur; and then he let two hands close over his quivering self. He became the gentle, purring, dainty darling of the house; had a name given him, and was made perfectly happy. He had the funniest and most coaxing ways, would answer with his queer little twitter of a cry when he was spoken to, and delighted in being taken notice of. In the day time he would have long comfortable slumber, during which his attitude was one of most luxurious ease, half-lying, half-squatting, with his wee tail placed like a screen, and such an absolute unbending of himself, such perfect restfulness, that he was the veriest picture of innocence and peace in a blissful infantile state of being sound asleep. He was usually kept in a bird-cage fitted with close wires, for he could almost slip

through a crack. He could make himself almost as thin and slight as if he were all membrane; and he had a mischievous enjoyment in squeezing himself through the smallest possible aperture, and evading his mistress, who would go hunting about the room for him, while the tricky elf looked roguish and amused, and as wicked as such a sweet creature could.

Once when he was sick, she sat up all night with him; and wherever she journeyed she took him with her in a small travelling contrivance something like a tin pail, pierced with many openings for air, and having a cover which shut him in securely. On one occasion he watched his chance and slipped out while they were waiting for a train in the large room at a depot, and darted across the feet of a lady, who shrieked out, "A mouse! a mouse! No, 'tisn't a mouse! oh, it's a rat! No, 'tisn't a rat! oh, what is it? *Wha-a-t* is it?"

When she found from her neighbor's exclamation that it was "my dear little flying squirrel, and I'm afraid I shall lose him," she laid down her bundle and bags, gathered up her skirts, and started to help catch him. But it was not so easy. The next woman, and then the other one, joined in the pursuit; and then the man who came in with the coal; and then the ticket-master; and then a boy who was hanging about. It was almost train-time, when all the doors would be set open, and a crowd of passengers inward bound would come pouring in.

The people who were engaged in the chase understood the gravity of the situation, and each and all redoubled their energy. The owner, the three other women, the man of the coal, the ticket-master and the boy went around and around that room; they jumped up on the seats and they jumped down again; they flapped their hats and struck blindly with their handkerchiefs; they poked and punched with umbrellas; they stumbled and reeled, and wore themselves out. The naughty squirrel would whisk himself against their faces, and sail along obligingly near them, almost within reach, and when they felt sure of him, he was gone. But at the last moment, when the engine was puffing in front of the door, he came down of his own accord, just as if he knew all about it, slipped into his cage, and cuddled down, with an arch expression in his big lustrous eyes which seemed to say that he wondered if he was going to have the whipping he knew he deserved.

WAYS TO DO THINGS.

VII.—TREE CULTURE.

By JOHN ROBINSON.

I HAVE often thought that were I a country boy, and my father would let me use some of his

land, I would have a small tree plantation of my own; for I should like to have something growing which I might watch and train and study and take pride in. Often driving in the country, I see how a group of trees here, and a belt there, and a solitary one yonder,

would add to the picturesqueness, to the actual money value and the productiveness of the farms. If my father would let me use the land, I would begin my tree culture at once. He would become interested in my trees, I think, by the time they were large enough to plant out, and I should have talked so much about the spots where they would look well and do good, that the whole family would make it an event, and come out to see the future groves and wind-breaks and shade trees set into their final places.

I heartily commend this work to the country boys of the Reading Union.

I doubt, to begin with, if you fully realize the importance of trees, though I daresay some practical farmer in the vicinity will tell you that a belt of trees at the north of his farm makes the season several days longer for him than his neighbor whose crop land is exposed to the cold northern blasts, and that it often happens that on farms protected by trees, melons and peaches are ripened, while upon the exposed farms they always fail; and I can tell you of good books to read on the subject; but right here I will speak of one or two points.

When you read in the papers every spring of the great freshets which sweep away houses, bridges, and all movable things, do you realize that this mischief is caused by the destruction of the old forests? It is; for the snow shaded by the trees used to melt slowly, and the earth, kept porous and free from frost, held, like a sponge, the melted snow and rains, and all through the season there was a steady supply of water in the brooks which fed the rivers; but since the trees have been destroyed the ground has become hard, and often, too, the soil has been entirely washed away and the land itself made worthless. The rains and melting snows rush off these bare hills in torrents, and, joined by thousands of similar streams, fill these rivers to overflowing and cause these freshets. Besides, trees are the purifiers of the air we breathe; and when we think of the uses to which the different kinds of wood are put, and our dependence upon the forests for the supply, we wonder that any one can be thoughtless enough to start the great forest fires which every year are destroying more timber in the United States than is used for all sorts of mechanical purposes together.

To succeed with your trees, you should become intimate with nature and see how she manages. You should know how the tree lives and breathes. If you will take a plant that has grown for some time in a small flower-pot and carefully turn it out, you will see on the outside of the ball of earth many little whitish root-tips. Every tree has millions, perhaps, of just such little roots. They are the mouths through which the tree drinks, and it is the loss of these which causes the tree to die when carelessly transplanted; for they are easily broken, and if exposed to the sun for even a few minutes, they will often become lifeless. If we may speak of the root-tips as

mouths, we can call the leaves the lungs of the tree, for it is through them that the tree breathes in from the surrounding air the gases it needs. Thus you should reason that while the leaves and roots are in active operation it would be a great shock to the tree to attempt to transplant it. This must only be done when the tree, with its roots and leaves, is at rest. With our leaf-shedding trees, this time is after their leaves have fallen, between late autumn and early spring.

You may think it will be an easy thing to go into the woods some day and dig up the trees you want to start your plantation; but unless you take very small trees, scarcely more than a foot high, you will find that the roots are so long, and have wandered under so many stones, or are so interwoven with the roots of other trees, that it will be impossible to dig them out in good enough order to hope of their living. For this reason trees from nurseries succeed better than those collected in the woods, because the roots of the wild trees have often gone far in search of water, while those in the nurseries, by cultivation and frequent transplanting, have been kept in a compact ball, and the tree can be dug up without injuring the root-tips at all.

Rather than attempt much with the larger trees, then, I advise you to start your collection by means of a little nursery. In this you can plant such trees as you can collect in the woods and pastures, and the others that you may obtain if you follow my suggestions. You can begin with small beds. The soil should be prepared in the same manner as for a garden bed, light and loose.

As soon as the frost is out of the ground you must start on your tree-collecting excursions, taking with you a spade, a large open basket, and a cloth to cover over the roots to prevent them from becoming dry. If you insist on collecting trees over two feet high, you will have to take the covered wagon, and one or two friends to assist. Be sure not to attempt too much for one day, for you not only have to collect the trees, but to plant them after your return. It will be best to collect trees of nearly the same size on any one trip, for then they can all receive the same treatment, and your nursery beds should be so arranged that trees collected at various times can be planted with other trees of the same kind and size.

On your trips you ought to know what kinds you are collecting; and unless you are acquainted with the forest trees you will have to invite a companion who can point them out. You can tell the seedling trees you find, by noticing* under or near what trees they are growing. The most young trees will be found where the older growth is scattering, and it will be useless to look for trees where cattle are allowed to roam, for they will surely have browsed them all off. Among those you will readily find are oaks, birches, maples, ashes, hickories, poplars, walnuts, the beach, chestnut, sumac, sassafras and basswood; and at the south and west, the tulip tree,

catalpa, liquid-amber, magnolias and hawthorns, and nearly everywhere the cedars, pines, hemlock and spruces are common evergreens. It will be well to avoid trees which grow naturally in swamps, as they require more water than they obtain in cultivation. For New England the best native trees to plant are the white and red pines, the white ash, the white and overcup oaks, the walnut and butternut, the hemlock and white spruce; because, besides being fine trees, they will, if they become large and are cut, be of value for their timber; for you know how scarce all timber trees are becoming.

Having selected a place for your nursery not likely to become very dry in summer, and one that you can easily water should there be a drought, plant the young trees in straight rows, about one foot apart in the beds, unless they are more than a foot high, when they should be two feet apart or even more. Use every care to prevent the roots from becoming dry, by sprinkling them, and by keeping a wet cloth over the pile while you are at work. You will of course dig the trees with great care to save as many of the rootlets as possible; and the holes in which the trees are to be planted should be of ample size. Place a tree in one of the holes and spread out naturally all the little roots, and if there are any broken ones, carefully prune them off. Throw some fine earth upon the roots and settle it among them. Next fill in the rest, and with both hands press it firmly down so that the tree is left about an inch lower in the ground than it was growing before.

You can, if you like, raise trees from seeds. This is very interesting, as the manner in which the different species germinate is curious and instructive. It will be an easy matter to get the seeds of such trees as hickories, maples, oaks, walnuts, and the beech, honey-locust, and elm; and, too, many of the seedsmen throughout the country are now making a specialty of tree-seeds. Some seeds, however, require to be planted as soon as they ripen, or to be protected in some manner, for after a short exposure they fail to germinate. Among such are the oaks, walnuts, hickories, magnolias and chestnuts. These should be planted in the fall, and if sent to any distance must be packed in rather damp earth or moss. Plant the tree-seeds in rows about an inch apart, and the second year transplant into another bed about one foot apart.

But those of you who think the best way will be to buy trees already started, so as to gain a year's time, can easily order them of Robert Douglas & Co., of Waukegan, Ill., who put up and forward to any address, postage paid, for one dollar, one hundred year-old trees. Their list contains many varieties to select from. You can form a club and buy 500 or 1000 trees, and they will come in excellent order, and, divided among the club, each of you will have an assortment.

While young all the cone-bearing trees require to be shaded during the hot summer months. The best

shade is made by nailing laths, about two inches apart, to some long strips of wood, and arranging them on posts over the beds. A shade can be made of boughs stuck into the ground; but this is neither neat nor permanent.

If you succeed, you will before long have a nursery of perhaps 500 trees ready to transplant to permanent situations. If you have taken good care of them, you will have become interested in landscape gardening and have read many books and articles about it, and you will greatly enjoy a chance to display your taste in arranging your cherished trees in groups, and by planting out the walls and out-buildings. This will justly require a great deal of thought, as upon it depends entirely the result of beauty, shade and shelter, when, years later, you are perhaps the owner of the place yourself.

It is impossible to give explicit directions for this work, as every plantation requires special treatment; but in general you should avoid mixing too many sorts in groups, nor should trees of different habit be brought into too close contrast.

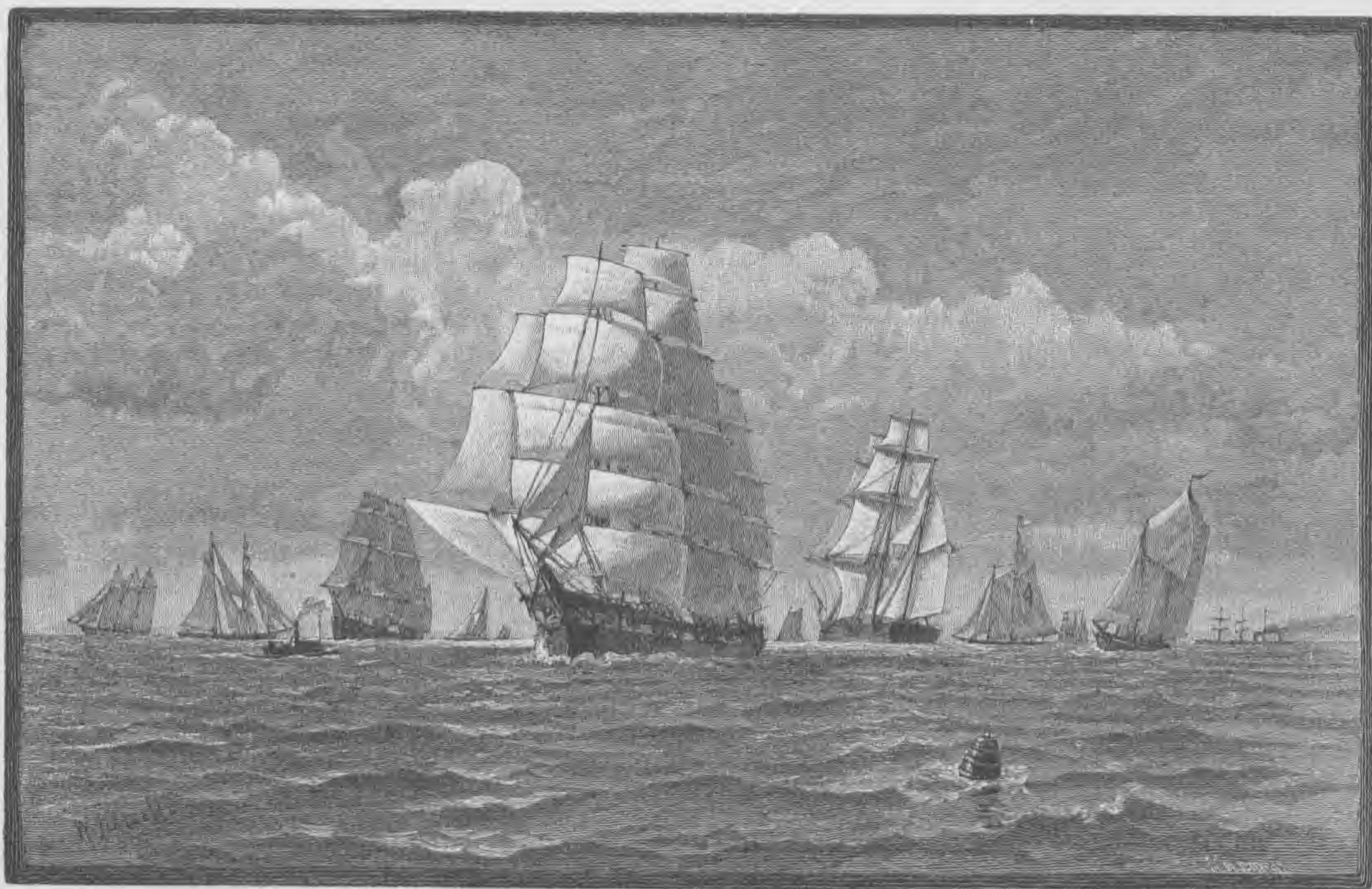
At the final planting, be sure to give the trees a good start. It is not enough to dig holes and place the trees in them. If the region is gravelly and the soil poor, you must remove the earth from a space four feet or more in diameter and to a depth of two or three feet, and replace it with a mixture of muck, loam and manure. Let us suppose you planting a tree five feet high, that the earth has been properly prepared, and the hole, a large one, has been dug. You can do your planting alone, but there is no reason why your sister should not help you—in fact the girls can do a great deal at arboriculture, particularly about the beds of seedling trees. Take one of the trees from the carefully covered pile, and stand it erect in the hole. Having made sure that it is at the right depth, which should be a little lower than it was growing before, spread out the roots in the direction in which they naturally go and cover them with earth to the depth of a few inches, working it in among the roots. As you do this let your assistant move the tree up and down quickly several times to insure the earth penetrating all the spaces between the roots. Throw in more earth, and treading it down the tree will be held in position so that you may take a final look to be certain that it is exactly straight and fitly placed before the remainder is filled in. Level off the earth, leaving it a little higher than the ground around it, for the rains will settle it considerably. Every spring you should dig around the trees, and through the summer the weeds must be kept down. It will add materially to the health and the rapid growth of your trees if you manure them well every fall, and that throughout all their growth they are well mulched with any available material.

I have only spoken of spring-planting; but you may, if you like, plant trees in the fall as well, although the spring is the best time for most species. There are, however, some trees that begin to grow so

early in the spring that they must be transplanted in the fall. Among such are the larch and several trees which flower before the leaves are developed. If you fortunately have plenty of land at your disposal, it will be possible for you to establish a little aboretum or museum of living trees, although it will require great care to prevent bad effects by too closely contrasting very different sorts of trees. You would in this way be led to desire to study the trees botanically, and form a scientific knowledge of their various

modes of growth and structure. Such a collection could be extended, even in New England, to contain some hundreds of trees.

It is quite possible for you to make tree culture profitable by proving to your neighbors what valuable accessions trees are to the farms. You may thus be able to sell a great many of your trees, and also plant them out for the purchasers. I shall wait with interest to hear of your commencing work, and will answer any questions you may need to ask me.



3-MAST SCHOONER. TOW-BOAT. BRIG. SLOOP. SHIP. CAT-BOAT. PILOT BOAT. OCEAN STEAMER.
HERMAPHRODITE BRIG. BARK. BARKENTINE. FISHERMAN.

OLD OCEAN.

BY ERNEST INGERSOLL.

V.

A LONG with progress in sea explorations has gone a like progress in ship-building, and at about an equal pace. That wood would float, that a log hollowed out served better as a support in water than one whole, and that an imitation of a hollowed log, made by putting several pieces together,

was best of all, were among the first facts learned by savage men. Thus came the canoes and first rude boats. For rivers and bays these proved enough, and ages passed before any advance was made.

The idea of rigging is equally simple of explanation. That a strong breeze moves a canoe out of its way, and that, if a man in a canoe holds a skin outstretched or a thick bush upright, the force would

send him along as fast as he cared to go, without the labor of paddling, were facts quickly and gratefully seized upon by the earliest boatmen. To have a skin ready for the purpose, and to set up a pole to hold it



SHIP WITH ALL SAILS SET.

SAILS: 1, Outer jib. 2, Jib. 3, Foretop-mast stay-sail. 4, Fore royal. 5, Foreto'gallant sail. 6, Upper foretop-sail. 7, Lower foretop-sail. 8, Fore-sail. 9, Main to'gallant stay-sail. 10, Main top-mast stay-sail. 11, Main sky-sail. 12, Main royal. 13, Main to'gallant sail. 14, Upper main top-sail. 15, Lower main top-sail. 16, Main-sail. 17, Main spencer. 18, Mizzen royal. 19, Mizzen to'gallant sail. 20, Upper mizzen top-sail. 21, Lower mizzen top-sail. 22, Cross jack. 23, Spanker. 24, Flying jib. 25, Foretop-mast studdin'-sail. 26, Foreto'gallant studdin'-sail.

in position, were easy matters; yet in this simple arrangement you have the first sail.

But skins were heavy and too valuable for such a purpose. People who spent much time on the water, therefore, like the ancient Egyptians, and the islanders of the Chinese and South seas, soon devised a way of weaving rushes or splints of bamboo into broad mats, and thus were able, on account of their lightness, to carry much larger and more effective sails, which were kept outstretched by one or more cross-poles or spars, and could be taken down quickly. Many such sails are in use to this day among the boatmen of Eastern nations. With the discovery of how to make cloth out of hempen, cotton, woollen and silken fibres, came a still better material for sails and ropes.

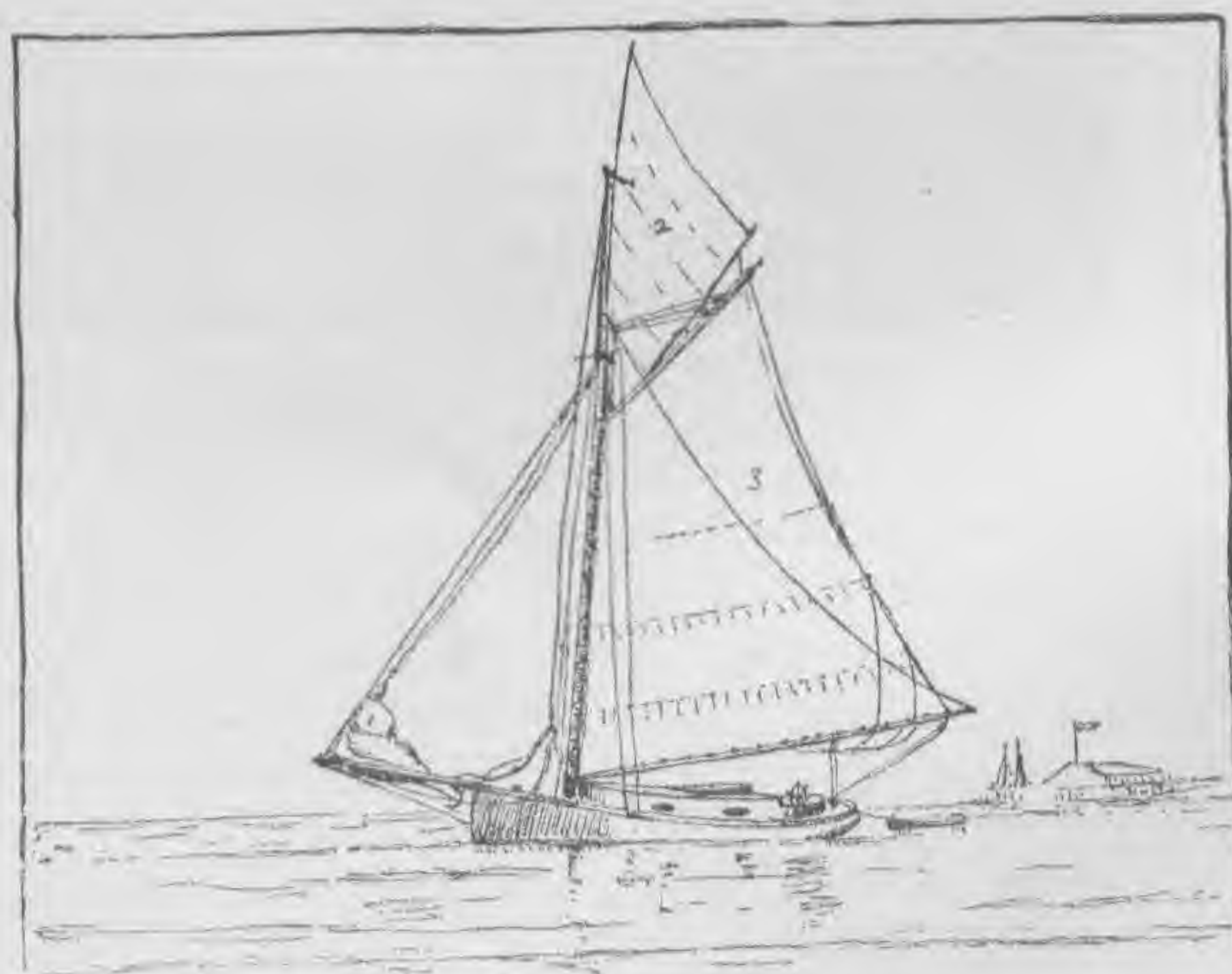
In the same way it was only gradually that men learned the best shape for the hulls of their boats. From the very first, I imagine, canoes were pointed, — at least in front; but this made the original dug-out more than ever liable to upset, and a smooth, round bottom causes a boat to drift sideways. At first the latter difficulty was avoided by putting a board or stiffened mat over the side, so as to counteract the leeway caused by the wind; but it was not long before the keel was added to the bottom, which cured both disadvantages.

It is said that the oldest forms of paddles of which

we have any record among the Egyptian or Assyrian hieroglyphs show them to have been shaped somewhat like the hand and arm, and that similar paddles were to be seen only a few years ago on the canals in Holland. This is natural, because undoubtedly the very first paddle ever used was the naked hand. Short paddles were soon found less powerful than long ones; but in order to work these latter it was necessary to brace them against something in the middle. Notches were therefore cut in the edge of the boat, your paddle has become an *oar*, and by and by the notch is to be replaced by a carefully formed row-lock, and boatmen will learn that it is best to feather their oars when they row.

Now build a great canoe-shaped hull, able to hold a hundred men, out of hewn ribs and planking; set up one or more short masts with a square sail hung on each of them, arrange as many oars as can be accommodated, with a single long oar in the middle behind, or two oars, one on each side of the stern, to steer by, and you have the plan of the vessels that the Phœnicians and Carthaginians carried their freight and fought their battles in; that Cleopatra, in all the splendor of her court, sailed down to Alexandria with; that brought tin from Britain, that later figured in the adventures of the Northmen and formed the navies of western Europe.

So, though the trading-vessels of the ancients depended on the wind for the most part, yet they all carried and used oars; while for the ships of war or pleasure, which were made longer and narrower than the traders, sails were held to be of small service, and oars alone were employed. In the time of the Roman Empire these row-boats-of-war were so made as to allow two, three or even more tiers of oars, one over the other, to be worked by rowers who did none



SLOOP.

SAILS: 1, Jib. 2, Gaff top-sail. 3, Main-sail.

of the fighting and were protected by high bulwarks. Some of these boats, then and several centuries

after, were built of a size almost equal to large vessels nowadays, and their oarsmen were trained into that precision of moving in perfect unison which alone could propel such heavy craft. Their construction was careful, too. They were often, if not always, sheathed with lead, and were put together with copper nails, since iron spikes rusted out. It was the fashion to dye the sails in brilliant colors or to embroider them, and the cabins were often magnificently furnished.

These row-boats held their place as war vessels through 2000 years of history, beginning with the battle of Salamis in 480 B. C. which saved Greece from the grasp of Xerxes. There were 380 open boats on the side of the Greeks there, each carrying about 18 soldiers besides the rowers, who sat amidships (or in the centre), while the soldiers stood upon two platforms, one at the prow and one over the stern. The ends of all those ancient boats were built up into a high projection forward, which ended in a serpent's head or a swan's neck, the face of an owl or some odd image; and we keep the tradition of it until now by putting a carved figure-head under our bowsprits.

The battle of Salamis taught the Greeks the value of a navy—which, by the way, they were at first afraid to send around the southern peninsula, and so used to haul across the isthmus of Corinth—and helped them greatly to attain the power they afterwards had. They improved, too, on the boats of their fathers, extended the end platforms to meet over the heads of the rowers so as to make a deck and give room for more soldiers, and devised "engines" to aid them.

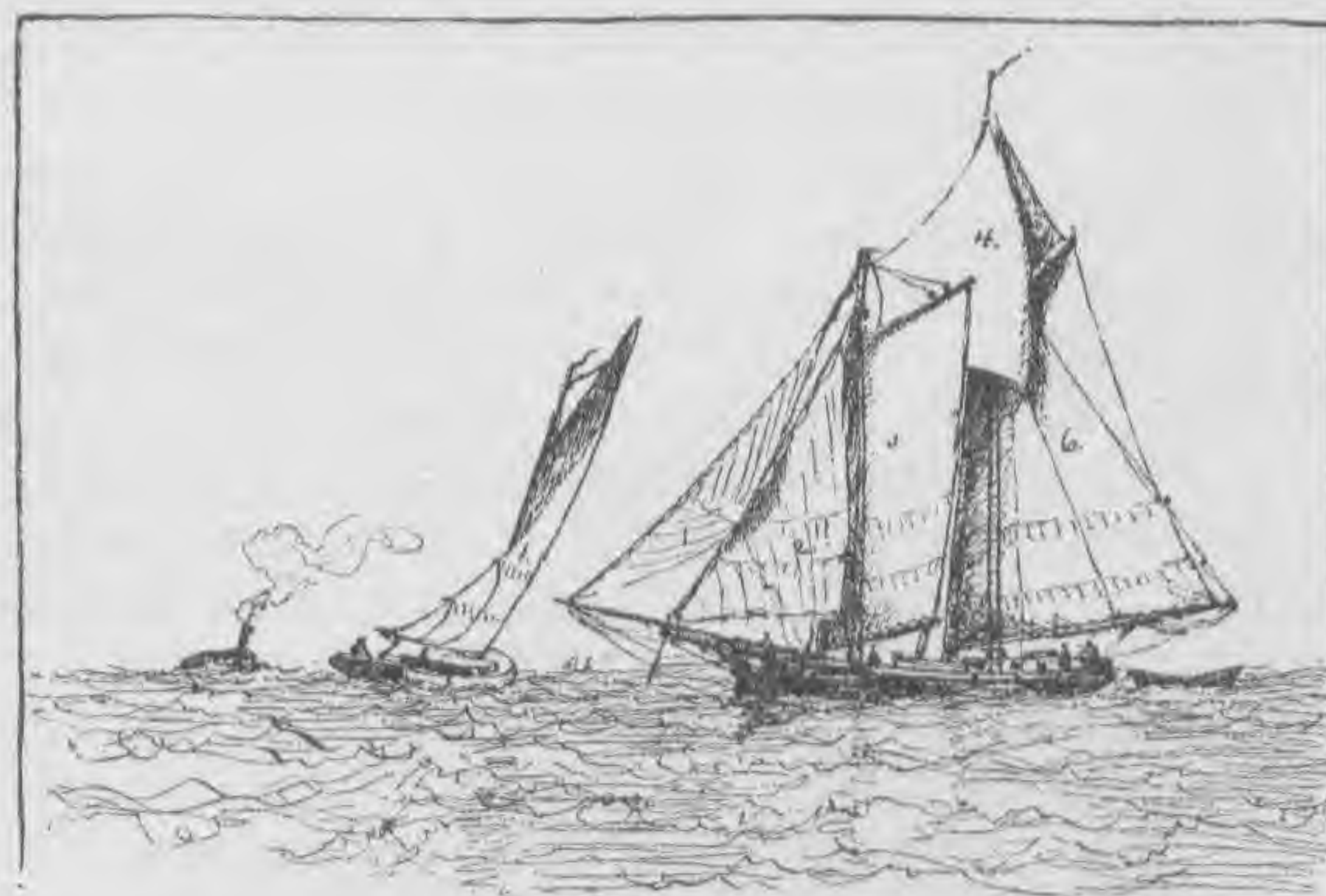
In the fourteenth century we begin to hear of a revival in the art of ship-building and the use of sails, as, indeed, was needful if the long voyages were to be undertaken which the discovery of the compass now rendered possible. In this revival the Venetians and Genoese took the lead, but the English, whose monarchs gloried in the title of "Sovereigns of the Sea," were not far behind.

Though the hulls of these vessels were large and tight, their shape was poorly adapted for speed or for safety in bad weather. Their decks were built up into immensely high structures at the stern and bows, after the old galley model, and to form forts for the soldiers. Our word "forecastle" reminds us of this old usage. Their masts were single sticks—not divided into top-masts—and hence were obliged to be thick and heavy; and they bore upon their summits large "top-castles" where a number of marines stood in a battle to shoot down upon the enemy's decks. This weight above, and height of surface exposed to the wind, and their rude rigging, made it impossible for them to sail safely, except with a fair and gentle wind (they never attempted it otherwise), and they were required to carry an enormous quantity of ballast. There was so little room for anything but sleeping-berths, armament and a cooking room in the war-ships, that every fleet had to take with it small vessels carrying provisions; and the case was little better in merchant vessels.

The ships in which Vasco di Gama, Columbus, the Cabots and other explorers did their marvellous work were no better than this.

However, as the known world widened and trade grew, the inventions of private ship-owners continually improved the rigging, and Columbus' "carravel" had four short masts, the forward one having a square sail, and the three after-masts that Mediterranean style of swinging three-cornered sail called *lateen*. At this time, too, pirates sprang up and exerted themselves to make their crafts as swift as possible, to escape their pursuers, while the regular navies, which governments now began to support, afforded opportunities to test inventions and adopt new models. To this same end also the introduction of gunpowder and cannons into warfare contributed; for now it was no longer needful to fight hand to hand, since ships could be defeated at a distance.

From the fourteenth century, progress was rapid towards the rigging of ships as we now see them, or rather as they were forty years ago when sailing vessels were at the height of their prosperity, before



CAT-BOAT.

1, Main-sail.

FISHING SCHOONER.

SAILS: 1, Flying jib. 2, Jib. 3, Fore-sail.
4, Stay-sail. 5, Gaff top-sail. 6, Main-sail.

steamers came to do away with sails, as sails had outstripped the old galleys.

The rigging of sailing vessels now is divided into "standing" and "running" rigging; the former includes the stays to the masts, now generally made of wire, the shrouds, and such other rope-work as is not adjustable. A vessel looks like a skeleton when "stripped" of all the mass of ropes, lines, halliards, sheets and tackle which seem such a tangled maze to a landsman's eye, but are so clear and handy to the "able seaman." The sails, too, can be divided into two classes: first, those attached to a boom and gaff, or to a stay; and, second, those spread between yards which are swung across the mast, and are known as "square" sails. All the variations in shape—except the lugger sail of New Orleans—in this country can be counted in one or the other of these classes.

The styles of rigs to be seen in American waters

are not many, and are easily described — at least so that you can recognize them and call them by their right names. Let us begin with the simplest:

A *sloop* has one mast and a main-sail,* and one or more jibs; there may also be a gaff top-sail.

A *cat-boat* is a kind of single-masted boat which has no bowsprit, but has its mast stepped in the extreme prow, and only a main-sail. There is a kind of sloop-sail called a leg-o'-mutton, which is pointed at the top, has no gaff, and is seen most often in the Connecticut sharpies, where there are often two masts rigged this way.

Of two-masted rigs, the oldest is the *brig*, which has square sails on both masts, just like the main and mizzen masts of a full-rigged ship, to be described in the next paragraph. Then there is the *brigantine*, a slight modification of the brig, and the *hermaphrodite brig*, which has schooner-rig on the main-mast and square-rig on the fore-mast. This will explain itself when you learn what a schooner is. The *schooner* is a purely American invention, and one of the greatest of all Yankee notions. It is two-masted, and the sails are alike on both, — a big squarish canvas stretched between a boom below and a gaff above, and between the gaff and the top-mast is a triangular canvas called a gaff top-sail; the bowsprit supports one, two or three jibs. Sometimes on the foretop-mast is placed a square sail, which makes the vessel a *top-sail schooner*. Now they are building many three-masted schooners, but three-masted vessels are generally rigged as *barks* (or *barques*) or as *ships*; or with square sails forward, and called *barkentines*; for, though we have come to speak of any large vessel as a "ship," yet in nautical and proper language a ship is a vessel rigged in a particular way, and it is nothing else.

Masts have their proper names: the highest is in the middle of the vessel, and is called the *main-mast*; the next tallest is nearer the stern, and is the *mizzen-mast*, and the third is in the prow, and named *fore-mast*. The sails and rigging take their names from the masts to which they belong, as, for example, main shrouds,

* I must refer you to the dictionary for definitions of these sails, if you don't know them now.

mizzen shrouds, fore shrouds, mizzen-royal main-top-sail-yard, foretop-gallant-staysail, and so on. The three masts, bowsprit, yards and stays of a full-rigged ship are capable of spreading an enormous breadth of canvas — thousands of square yards; yet in the trade-winds vessels sometimes go week after week without touching a single thread night or day. All of the sails upon the masts are square, and take their names from the sections of the mast opposite which they hang. Counting from the deck to the truck, or tiptop of the mast, these sails are as follows: On the main-mast, main-sail, top-sail (generally in two parts), top-gallant-royal and sky-sail. On the mizzen-mast are mizzen-sail, mizzen-topsail, mizzen-top-gallant, mizzen-royal; on the fore-mast, fore-sail, foretop-sail, foretop-gallant, fore-royal. The bowsprit sails are the foretop-sail, stay-sail, jib, flying jib and outer jib. Behind the mizzen-mast is a schooner-like sail called a spanker; and each of the stays running diagonally from mast to mast bears a triangular sail known by the name of the particular stay on which it hangs, as main-topsail stay-sail, and so on — six in all. In addition to all this, a little sail is sometimes set above the sky-sail and royals, and another under the bowsprit, while out beyond the ends of the yards are extended light additional yards carrying studding-sails. There may then be twenty-eight sails set at once on a full-rigged ship, besides the studding-sails. Rig the fore-mast of a three-masted vessel with square sails, and the main and mizzen masts with schooner sails, and you have a bark. A *frigate* is a ship made for war, and intended to be handled with quickness.

But the tendency is more and more toward giving up this elaborate arrangement of lofty square sails, and substituting three-masted schooners. This is due to the fact that the schooner-style will sail closer to the wind, gives as much force in proportion as the ship-style, while it is far less expensive to build, and more quickly and easily managed, not requiring nearly as many men, and therefore being cheaper to run as well as to set up. The schooner has worked its way, by proving its merit, well to the front in the estimation of seamen of all nations; which is why I have called it one of the greatest of Yankee notions.

HEALTH AND STRENGTH PAPERS.

VI. — WHAT SHE ATE. — (Continued.)

BY MARY J. SAFFORD, M. D.

WE always have the nicest and finest of white bread," said the mother. "So she doesn't really suffer, I guess. But I *don't* approve of the tea. I never have. I think it has a great deal to do with

her nervousness. But her father laughs at me, and says that his grandmother drank strong tea three times a day, and lived to be ninety years old."

"And I *always* have had it," said the daughter.

"Yes," said the mother. "It is only natural children should want it, and should get a sip when every one is enjoying it at table."

"And what does she have at supper?" I asked.

"Well, her dinner having been so late, of course she doesn't care for much supper; so she has a cup of tea and a slice of cake and a saucer of fruit."

"And then comes study hour?" I asked.

"Yes," said the girl, "and *then* is the time I get hungry and eat something. I feel all gone, and still so very hungry."

"And you go into the pantry and help yourself?" I asked, laughing in spite of my responsibility.

"Yes, a wolf-meal," said she, laughing back.

"Of what? Last night, for instance?"

"I believe it was cold beans," she said.

"And on them?"

"Pepper-sauce and mustard," laughed her mother.

"And one day's like another, I suppose?" I said.

"Well, I don't know a worse record. I wonder, sometimes, that children do not actually die from nervous prostration, are not actually found in insane asylums! With such vitality, what do they not endure! What splendid creatures some of them would grow up, were they trained and cared for healthfully! Do you like milk?"

"Ye-es, I guess so," said the girl.

"Why not drink that instead of coffee and tea?"

The mother paused.

"I don't know—we buy our milk—one would have to take such a quantity were it used on the table as a beverage. Still, of course, she could have it if you think best. Doesn't it make people bilious?"

"That is often said without signifying much. Milk has several food-giving qualities; of itself it makes a good meal, and when drunk in connection with eating heartily of other things, it often gives a sense of fulness and satiety that would not be experienced if eaten with one of the grains, or if drunk when the meal was a light one."

Then I suggested oatmeal. But here the daughter herself shook her head decidedly. "Sticky stuff," she said. "And warmed over at that!"

"My dear, you are worth an experiment," I answered. "I will send you a breakfast to-morrow." (I sent her a dish of perfectly steamed oatmeal, smothered in cream. She came in at night to tell me she ate it, every grain.)

"It *was* grains," she said knowingly. "It wasn't paste! And mother wants to know how you cook it, and she is going to buy cream."

So I showed her my pet steamers, and told her time and quantity; and I showed her barley, and rye, and gluten, and cracked wheat, and told her that as they were the foods for bone and muscle building, the young and growing should eat fully and daily of them. "You would have had very different teeth, my child," I said, "had you eaten of these instead of white bread."

"And do you not care for meats at all?" I went on.

"I don't seem to."

"You *ought* to like a sirloin steak, a tender chop, or a slice of rib roast."

"I like fowl very well," she said.

"And fish?"

She shook her head. "I don't seem to."

"She really doesn't," said the mother.

"Well, with exercise, and abstinence from tea and coffee and cake, she will. Meantime you might make good soups and broths."

"Oh, I *should* like soups, mother," said the child, and so thirstily that it arrested my attention, and I tried to show her mother how burned and heated the stomach had become from indulgence in "mustard and pepper-sauce," tea and coffee; and I also described several soups.

"We seldom have soups," said the mother, "but we *can*, I suppose, though I shall have to make them myself. A cook's idea of a soup is so much water, so much grease, and so much pepper."

"You will see a great difference," I said, "when your daughter is nourished instead of stimulated for her day's brain-work. The tea, coffee and condiments act upon her as the whip on a tired horse—it makes him trot when he naturally would stop for rest."

"Must she have *no* sweets?"

"Please don't suppose that I *can't* give up my *candy*!" said our little patient scornfully.

"I do not object to plain, pure sugar candies, if eaten as a dessert now and then," said I, much to their surprise. "The flavoring and coloring are often mischievous. Keep that in mind. Still I rather you would give candies the go-by along with the peppers and limes, and get your positive sweets and sours from fruits. Let an orange before breakfast be your only between-meal indulgence. When once you have gained an appetite for healthy foods, the idea of food between meals will be actually repugnant to you. And don't you know that your stomach is bound to take hold of food and try to digest it just as soon and just as often as any is offered it? You will feel very different then from head to foot when your stomach is allowed its rightful and regular rests. This precaution alone will help you to a good appetite in time."

Then I turned to the mother:

"A mother," I said, "needs to be a chemist and microscopist to know how to prepare food so that it shall be the most palatable and nourishing. With an understanding of the microscope and of chemistry, she could often detect impurities in the food she buys, even. A large majority of the foods prepared for babies is not what it purports to be."

"Don't! don't!" cried the mother rising. "Don't dig down to the roots! Don't propose thoroughness! I've no time! It's too late! I never had such a sense of responsibility before, and I can't think of going deeper than you have already proposed."

"But I—mother! I can learn! I'm just in the learning-time!" said her daughter. "What *is* it, doctor? Tell *me*! Are there schools to teach these things? Mother can't go, but I can. Then when I grow up I shall *know*. And I'll have my home right, and have my girls eat and sleep and walk and dress and

study right, and *that* way the world could all be made new again!"

The girl was in great, deep earnest. Her eyes burned star-bright, her cheeks burned rose-red.

How could I help spending another hour with her, trusting to her enthusiasm to waken other girls! How could I help telling her of the cooking schools, and of the Women's Laboratory where domestic chemistry is taught — what the things we eat are made of, what are put into them to cheapen and render them unfit; and of the Women's Physiological Society, and that there are opportunities for women to learn about the best methods of heating and ventilating houses,

even how the sewerage pipes should be arranged to keep our dwellings free from hurtful gases, and what materials every housekeeper should keep and use to avoid bad odors in the house. I told her, too, of art-rooms and art-lectures where the principles and illustrations bore straight upon making home beautiful.

"O mother!" cried she, all in a glow, "such going to school as *that* would amount to something!"

Her mother put her arm about her to quiet the nervous girl; and I said gently, "Get strong, my dear, and all these things are possible to you."

"Oh, I will," she said. "I have begun. You just ask Miss Allen what she is doing with me!"

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

VI.

BEETHOVEN AND THE SYMPHONY.



BEETHOVEN.

LOUIS VAN BEETHOVEN, the greatest composer of the nineteenth century, was born at Bonn on the Rhine, December 17th, 1770. His father was a musician. Little Beethoven was compelled to learn music as though it were a task.

He had an aversion to it because his friends sought to force it upon him.

His father had sometimes to beat him before he

would sit down to the piano. Yet when left to pursue it as a recreation, he became absorbed in the art; and he began to compose music at an early age.

At the very beginning of what promised to be a most brilliant public career, he became *deaf*. What greater misfortune could fall to the lot of a musician? Milton, the poet, could not see the beautiful scenes of nature, and Beethoven could but imperfectly hear the sweet strains with which he charmed the ears of the world. He sometimes could not even hear the thunders of applause with which audiences greeted his own compositions.

He soon became as inwardly deaf to society as outwardly to the world of melodious sounds. He shunned rank, wealth and pleasure. In his aloofness he seemed proud and cold; but instead, he carried with him a heart that hungered for affection.

He was fond of the country, of the open air and of walking alone. In his walks he often became absorbed in composition. One of his pupils relates that one day when he accompanied him, the master began to mutter and sing in a strange way. He presently said, "A theme has just occurred to me for the last allegro of my sonata" (*Op.* 57).

When Beethoven reached home he ran to the piano and sat down without taking off his hat. The pupil seated himself in a corner, and there patiently waited. Beethoven seemed to forget him. Nearly two hours passed, when the composer started up, and seeing his pupil still there, exclaimed, "I can give you no lesson to-day — I must *work*!"

As he could not hear himself play, or but imperfectly, his rendering of his own music could delight only his own inner sense. Says one:

"In the latter part of his life his playing was painful to those who heard it. . . . Sometimes he would lay his left hand flat upon the key-board, and thus drown in discordant noise the music to which his right hand was feelingly giving utterance."

When he found he must bid farewell to his hearing, he gave expression to these sad words: "As autumn leaves fall and wither, so are my hopes blighted. Almost as I came, I depart. How long have I been estranged from the echo of true joy! When, O my God, when shall I feel it again in the temple of nature and man? — Never!"

The deafness of Beethoven did not impair his

usefulness. His very seclusion seemed to become a source of inspiration and strength, and one grand symphony after another flowed from his pen like the glowing prophecies of the ancient seers.

His brother died and left him the charge of his nephew. As Beethoven never married, all of his affection centred upon this boy. The young man became dissolute; he failed to repay the debt of gratitude he owed; and his heartlessness filled the last years of the composer with double sorrow. How sad to hear the great-hearted man say in the fulness of his grief, "I go to meet death with joy."

Although always poor, he was very generous. At a concert given in aid of the soldiers wounded at Hanau, he supplied the music and conducted the orchestra. He was offered payment for his services on the occasion. "Say," he writes, "that Beethoven never accepts anything when humanity is concerned."

In the afternoon of March 26, 1827, Beethoven, then fifty-seven years of age, was seized with his last mortal faintness. It was a cloudy day; at evening the wind rose, and a thunder-storm burst over Vienna; and while it was still raging, the earthly life of the composer came to a peaceable close.

A very beautiful story is told in Vienna of Beethoven's early life. A friend has given us a touching version of it, and we quote at some length from his manuscript.

Some years ago I spent a few days in Bonn, the birthplace of Beethoven, and during my sojourn, I made the acquaintance of an old musician, who once intimately knew the great composer.

"You know," said he, one day, "that Beethoven was born in a house in the Rhein Gasse (Rhine street), but at the time I became acquainted with him, he lodged over a humble little shop in the Roemerplatz. He was then very poor, so poor that he only went out to walk at night, because of the dilapidated state of his clothing. Nevertheless, he had a piano, pens, paper, ink and books; and notwithstanding his privations, he spent some happy moments there. He was not yet deaf, and could enjoy the harmony of his own compositions.

"One evening I chanced to call, hoping to persuade him to take a walk, and return with me to supper. I found him sitting at the window, by the moonlight, without fire or candle, his face concealed by his hands, and his whole frame shivering with cold. He came out with me, but was dark and despairing, and refused all consolation.

"I hate the world," he said, with passion. "I hate myself. No one understands me, or cares about me; I have genius, and am treated like a pariah. I have a heart, and no one to love. I am miserable!"

"I made no reply. It was useless to dispute with Beethoven. He did not cease till we re-entered the city, and then he relapsed into a sad silence. We crossed a dark narrow street near the gate of Coblenz. All at once he stopped.

"Hush!" said he; "what is that?"

"Listening, I heard the faint tones of an old piano issuing from some house at a little distance beyond. It was a plaintive melody in triple time, and the performer gave great tenderness of expression. Beethoven looked at me with sparkling eyes. 'It is taken from my *Symphony in F*,' he said; 'here is the house. Listen—how well it is played!'

"The house was small and humble, and a light glimmered through the chinks of the shutters. He paused to listen. In the middle of the finale, there was a sudden interruption, silence for a moment, then a stifled voice was heard.

"I cannot go on. I can go no further this evening, Frederick."

"Why, sister?"

"I scarcely know, unless because the composition is so beautiful that I feel incapable of doing justice to it. Oh, what would I not give to hear that piece played by some one who could do it justice!"

"Ah, dear sister," replied Frederick; "one must be rich to procure that enjoyment. What is the use of regretting? We can scarcely pay our rent; why think of things beyond our reach?"

"You are right, Frederick; and yet when I am playing I long once in my life to hear good music well executed. But it is useless, it is useless!"

"There was something singularly touching in the tone and repetition of the last words. Beethoven looked at me. 'Let us go in!' he said abruptly.

"Go in?" said I.

"I will play to her," he replied with vivacity. "She has feeling, genius, intelligence; I will play to her, and she will appreciate me." And before I could prevent, his hand was on the door. It was not locked, and opened immediately. I followed him across a dark corridor, towards a half-open door. He pushed it; and we found ourselves in a room with a small stove at one end, and some coarse furniture. A pale young man was seated at a table, working at a shoe. Near him, bending in a melancholy manner over an old piano, was a young girl. Both rose and turned towards us as we entered.

"Pardon me," said Beethoven, somewhat embarrassed; "pardon me, but I heard music, and was tempted to enter. I am a musician!"

The girl blushed, and the young man assumed a grave, almost severe manner.

"I heard also some of your words," continued Beethoven. "You wish to hear, that is, you would like—in short, would you like me to play to you?"

"There was something so strange, so comical, in the whole affair, and something so agreeable and eccentric in Beethoven's manner, that we all involuntarily smiled.

"Thank you," said the young shoemaker; "but our piano is bad, and then we have no music."

"No music," repeated Beethoven; "how then did

Mademoiselle ——.' He stopped and colored; for the young girl had just turned towards him, and by her sad, veiled eyes he saw that she was blind.

"'I entreat you to pardon me!' stammered he; 'but I did not remark at first. You play, then, from memory?'"

"'Entirely!'"

"'And where have you heard this music before?'"

"'Never, excepting the music in the streets.'"

"She seemed frightened; so Beethoven did not add another word, but seated himself at the instrument and began to play. He had not touched many notes when I guessed what would follow, and how sublime he would be that evening; I was not deceived. Never, during the many years I knew him, did I

Beethoven's ideas. His head dropped on his breast, his hands rested on his knees, and he appeared plunged in a profound meditation. He remained so for some time. At last the shoemaker rose, approached him and said in a low voice, 'Wonderful man, who are you, then?'"

"Beethoven raised his head, as if he had not comprehended. The young man repeated the question. The composer smiled as only he could smile.

"'Listen,' said he; and he played the first movement in the *F* *Symphony*. A cry of joy escaped from the lips of the brother and sister. They recognized the player, and cried, 'You are then Beethoven!'"

"He rose to go but they detained him. 'Play to us



BEETHOVEN LISTENS TO HIS "SYMPHONY IN F."

hear him play as on this day for the young blind girl and her brother on that old dilapidated piano.

"We remained sitting and listening. The brother and sister were dumb with astonishment. The former had laid aside his work, the latter, her head slightly inclined, had approached the instrument, her two hands clasped on her breast, as if she feared the beating of her heart might interrupt those accents of magic sweetness.

"Suddenly the flame of the solitary candle flickered, fell, and was extinguished. Beethoven stopped. I opened the shutters to let in the rays of the moon. It became almost as light as before in the room, and the radiance fell more strongly on the musician and the instrument.

"But this seemed to have broken the chain of

once more, just once more,' they said.

"He allowed himself to be led back to the instrument. The brilliant rays of the moon entered the curtainless window, and lighted up his broad, earnest and expressive forehead.

"'I am going to improvise a sonata to the moonlight,' he said, playfully. He contemplated for some moments the sky sprinkled with stars, then his fingers rested on the piano, and he began to play in a low, sad, but wondrously sweet strain. The harmony issued from the instrument sweet and even, as the rays of the moon spread over the shadows on the ground."

Such is one version of the popular story of the "Moonlight Sonata."

WHAT TO DO ABOUT IT.

LITTLE KATE. "Who was the man who gave his horse a collar of pearls?" Caligula, the Roman Emperor, among his other wild, impious mockeries of all sacred and human dignities, made his favorite horse high-priest and consul, ordering the honors due the highest offices of religion and of state government paid to the beast, which was kept in marble apartments, hung with silken trappings, and decorated with a wide collar of pearl, like those worn by Indian princes.

LAURA B. asks how can a girl of ten who goes to school earn money? If she has good parents to supply her with what a little girl needs, and studies out of school as most children do nowadays, and helps her mother as all girls ought, she will not have much time to earn or think of money. She should not attempt any work which will keep her sitting in the house, for she will need all the fresh air and exercise she can get out of school. Raising plants and fowls is the best pursuit for you, beginning with some carnations and geranium slips in the window, and half a dozen hens in the back yard. But remember, to succeed in anything, you must give it steady care, feed and water the chickens when you had rather be reading a new story, or watering and tending the plants when you want to play with other girls. You will need to study and read about plants and fowls to learn how to raise them, and the best part of the business will not be the trifle of money you will earn, but the experience and knowledge of things you will gain.

FRANK L. W. "Would you please tell me how I could become a midshipman and enter the naval academy at Annapolis, and what would be required of me? Would I? Under what circumstances? Would and could imply some condition; and when used as a question, are correctly followed by the word if, and there is no if about the Blackbird's answering. Say, *Will* you tell me how I *can* do so and so. To enter the classes of cadet midshipmen, you must be between the ages of fourteen and eighteen, of good moral standing and sound health, and pass a satisfactory examination in arithmetic, grammar, geography, reading, writing and spelling. You must apply, with such recommendations from influential friends as you can secure, to the congressman from your district, each representative having the right to nominate one candidate. You will find the routine very strict, and that learning to fill a place in the United States service is a very different thing from grammar school discipline. There will be some rough hazing to undergo, unless customs have changed at Annapolis lately. How would you like being held out of a fourth-story window story by the neck and heels by a few fellows no stronger than yourself, as one newcomer was a very few years since? As usual, the mid-

shipmen make the hardest of their position for each other. Entering the navy is no holiday work; but the discipline itself, without the hazing, is what every boy would be the better for.

MERRY wants to know if it is not right to do examples in simple interest the way it was taught first, and not learn two or three different ways while reviewing. It is lawful and right to do examples in any way which brings the correct answer, but it is desirable to learn different ways, because you will find them convenient in practice for questions of different kinds.

HYDE PARK wishes to know what is meant by "the ironclad oath," and what by "the modified oath." Persons wishing to take office under our National Government after the Rebellion were very properly required to take oath that they had never borne arms against the United States, never given aid, counsel or encouragement to its enemies in any shape, or held office under any pretended government within the limits of the Union. Those persons who wished to return to their rights as citizens of the United States from which they had been barred by the war merely took the oath of allegiance to government for the future. The former by its strict provisions took the name of the ironclad oath, and the latter the modified oath.

CONSTANCE "is ten years old, and lives in a hill town in Vermont where wood is plenty and no one burns coal," so she can't sift cinders, and wants to know how she can make money. Why, the wooded hill country is just the place for treasures of creeping pine, princess pine, arbutus, laurel and mitchella, which keep green under the snow, and townspeople like to have these hardy plants which are beautiful in pots and baskets. Such things are sold on the street in Boston all winter long, and children can dispose of them in every large town or village. Gather the running pine and other vines by the yard or half yard, and pack the roots in damp wood moss. Take up the other plants without disturbing the roots or shaking the earth loose about them; have plenty of soil, and place them in half-pint strawberry baskets or birch baskets, with moss to hide the roots. Wash the leaves clean with the spray from a watering-pot, and florists are very likely to take them to sell at a small price. A quart basket with a fine wild fern, a clump of hepatica and some mitchella, sells in the city for 10 cents. Nice lengths of wild grape-vine and roots trimmed for rustic work, or bundles of small straight cedar branches for nailing on the outside of plant-stands are salable. And I hope you know how to knit, all of you, boys and girls, beginning with wristlets in wool or cotton, to finish off the wrists and ankles of flannel under-garments, and going on to socks and mittens, spreads and blankets.

THE WISE BLACKBIRD.

THE WIDE AWAKE POST-OFFICE.

Those who wish their letters published in the WIDE AWAKE Post-office should direct their letters thus: EDITORS OF WIDE AWAKE, 32 Franklin St., Boston, Mass.

Those who wish to ask questions of somebody much wiser than persons of their own years, should address their letters thus: THE WISE BLACKBIRD, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

Those who are pursuing the Reading Course of the C. Y. F. R. U., and would like to ask questions about any article in that course, may address their letters to the author of that article, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

All who wish to join the Chautauqua Young Folks' Reading Union can do so by sending their names with three three-cent stamps to the President of the Union, Rev. Dr. J. H. Vincent, Plainfield, N. J.

The Postmistress believes that the young folks will be much obliged to Dr. Hale, because that in this number he says something explanatory, and especially to them, about the *Æsthetic Movement*; and she commends to them, too, the Japanese Folk-lore ballad of Little Peachling; it holds a little precept of conduct — as Japanese stories are apt to do — that it is never a mistake to treat any offer of friendship with courtesy.

The Publishers of WIDE AWAKE have requested the Postmistress to say to the children that they will give a Cash Prize of Fifteen Dollars to the boy or girl who colors in the best manner the set of six outline cards now offered as premiums to subscribers to the LITTLE FOLKS' READER; and that they will give Ten Dollars to the boy or girl who will color these same cards in the next best manner, as regards artistic finish and detail.

These cards will be called the Prize Outline Cards.

Another letter from our irrepressible Ruth. What an exhilarating breath of the cold, snowy hills sweeps in with it from the school-grounds! We invite the other girls to give us glimpses of their every-day life at school, both of sport and study. She says:

I go skating nearly every day now, though I do not like it so well as sliding on a "double runner." Here are some verses I wrote for our school paper:

Attend, all ye who list, to hear our double runner's fate
I tell of that thrice-famous one which came to grief of late,
When Everett steered and Caley pushed, with lots of fun and
noise,
Down from the top of Perkins' hill the load of girls and boys.

It was a lovely winter's morn when they sped quickly past,
But oh, alas! they found that they were going most too fast:
Past Morton's, past Perkins', untired they glided still,
Till just in front of Lottie's home they met with dreadful ill.

The runner swayed — they all fell off into a snowbank there,
The girls were frightened, but the boys pretended not to care.
Next morning when the sliders met they missed one boyish form:
The gallant captain stayed to sing within the school-room warm.

Say, *can* it be his courage fails where girls still dare to slide?
For never since that fateful morn he's dared that perilous ride.
Perhaps he is forbid to slide, perhaps his limbs are sore —
Whate'er the cause, I only know the captain slides no more.

DEAR WIDE AWAKE:

One day my father, myself and Rob and Will, my brothers, went to Goose Creek, bass-fishing. As we went by one of the little streams that empty into the creek, papa caught a large bass, weighing about two pounds. We went on up the creek, and came to another little stream. Papa then made a fire and cleaned the fish, and wrapped it in wet leaves, and put mud around that. After the fire had burnt till there were nothing but coals left, papa raked out a place and laid the fish in it and covered it with coals. Papa went on up the creek, but Rob, Will and I stayed there and watched the fish. About two hours afterwards papa came back, having caught another bass a little larger than the first. We then raked away the ashes and took out a piece of baked mud shaped something like a fish. The skin stuck to the mud and came off, leaving the white meat, which we ate. It seemed to be the best fish we ever ate, but we were hungry, and had no bread with us.

THOMAS NELSON WILLIAMSON.

The Postmistress invites all the boys who read WIDE AWAKE to write letters this summer from camp and farmhouse, and describe their sports and adventures; and if they invent any new, convenient ways of cooking, or to make themselves comfortable, she hopes they will be sure to tell *how*.

CASTLETON, VT.

DEAR WIDE AWAKE:

I thought you would like to hear about my school. It is a Normal school, with a primary at it. We have four teachers, and we like them all so well we don't know which we like best. I have a little sister. Her name is Mary. She goes to school with me — only she's sick now. She is seven years old. I am two years older than she is. Seven and two are how many?

About tools: My mamma chops her bread with a chopping-knife. I think it would be better if we could invent what I am going to tell about. Have a piece of board full of square

knives running each way, with a lever from the handle on the top; of course the knives must be sharp on the edges — not very, though. I have a scroll-saw, if I *am* a girl. I am sick, and the doctor didn't give me anything to eat for four days excepting crust coffee. I hate it. Don't you think he's a hard-hearted doctor to starve a little girl like that? I hope Annie will write some more of those cunning rhymes. I was very much interested in the letter from Ernie. I always like to read about strange countries. How I would like to see Mary West's cooking stove! I think I have written as much as you will like to read, so good-by.

EDNA V. V. HIGLEY.

BINGO FARM.

SOMERVILLE, Mass.

DEAR WIDE AWAKE:

Please give my love to all the little folks around you. I have taken you for three years, and I think you are *very* wide awake. This morning the trees were all white out here, and it looked just as if the world was all in white; and I was sorry to see it melt. I would like to tell you about the cotton-batting dolls I make: First, I take a piece of paper about a half of a foot in length, and make a roll of it; then I cover it with some of the cotton-batting; next I take a piece of the batting for an underskirt and buttonhole-stitch it all round; then I take a large piece of batting and make another skirt, buttonhole-stitched; then I sew them on about three inches from the bottom of the paper. After that I make two capes, one shorter than the other (I forgot to say to use split zephyr worsted — I think blue makes the prettiest ones), and buttonhole-stitch those. They are really pretty, over the skirts. I take some small black beads for the eyes, some red worsted for the mouth, and I make a buttonhole-stitched hood; and then there is your baby all dressed.

EDITH.

In the following letter, Jessie proposes to the other girls a very sensible and womanly thing to do; and we hope she may organize a large society of "Wide Awake Cooks." The members shall be privileged to exchange receipts and experiences through the WIDE AWAKE Post-office.

PROVIDENCE, R. I.

DEAR WIDE AWAKE:

Although we have never written to you before, we are two of your most constant readers. In the January number of this year, Mary R. West and her sister of New York, wrote about their up-stairs kitchen, and asked WIDE AWAKE girls for receipts for chocolate creams. My sister and I are as interested in cooking as they seem to be, only we use the big kitchen instead of one like theirs. We have a receipt for perfectly luscious creams, which we wish to send to Mary and any other WIDE AWAKE girls who wish it. For the inside, take two cups of sugar, one cup of water, and let them boil from five to eight minutes. *Stir all the time.* Take it from the fire and stir till it comes to a cream. When it is nearly smooth, add one teaspoonful of vanilla. Then make it into balls and set away to cool. For the outside, melt a half-pound of chocolate, but *do not add* any water. Roll the cream-balls into the chocolate while it is warm. Set them to cool again, and then they will be ready to eat.

I was reading awhile ago of two girls who kept pretty blank-books with pictures on the cover and a lead pencil attached. In these books they kept receipts, but of only those articles which they could make themselves. They were persevering young cooks, and soon had quite a list of nice dishes they could make. Surely, their future husbands will not starve if the cook happens to leave. Wouldn't that be a splendid thing for us WIDE AWAKE girls to do? I propose we try it. Will Miss Mary West send me, through the WIDE AWAKE, the receipt for her favorite cake? I will learn to make it, and it shall be the first receipt in my new book.

JESSIE CURTIS.

A lady who is fond of children, and likes to amuse the very little ones, sends a little Guessing Game to the Post-office — a Rhyming Game of Animals, she calls it. It is a pretty thing for an elder sister to read to her little brothers and sisters, giving them time to supply the rhyming word of each alternate line.

Sit down; we'll try the rhyming play.
Can you guess the word I do not say?
Who will tell me what little Bo-peep
Went hunting for? Her woolly S — p.
Who's read what Robinson Crusoe wrote
About his island and his G — t?
What creature lives in a den of rocks,
And steals the farmer's geese? The F — x.
And what is it runs about the house
When all are asleep? The little M — e.
And what one do you love to pat
Upon the head? Nice P — y C — t.
And what one does the pussy cat
Love well to catch and kill? The R — t.
A baby wears soft tiny socks,
But horny hoofs has the patient O — x.
I think you all have had the measles,
That rhyme well with the funny W — ls.
Now who among you ever did
See a frisky little woolly K — d?
I have seen colts jump, haven't you?
But that's nothing at all to the K — o.
And what one would you scarcely care
To meet at night? A big black B — r.
This one makes a cunning lair
And has long ears, the timid H — e.
A river in Africa's called the Niger,
And on its banks roams the fierce wild T — r.
Of a beautiful animal I will tell,
And its home in the East — the swift G — e.
You've heard of the purple heliotrope,
It rhymes with the graceful A — e.
What one would surely make you laugh
With his long neck? The tall G — e.
Unless you save your pennies, you can't
Go in to see the E — t.
To slam the door is a very bad habit;
No such thing does the little R — t.
This is the end of our Rhyming Play.
Will you guess the Fishes another day?

PUBLISHERS' DEPARTMENT.

POLLY'S SCHEME. By Corydon. Boston: D. Lothrop & Co. Price \$1.00. Here is a book that ought to create a sensation; bright, breezy and jolly; full of life from cover to cover, and worthy a place in any of the countless carpet-bags which will be packed by vacationists this summer. "Polly's Scheme" is one that has occurred to hundreds of weary city-dwellers when casting about to find ways and means to spend the summer months comfortably and profitably. It was for herself and husband to rent a nice little furnished house in the country for the summer, persuade their friends to live with them on the coöperative plan, save money, and be happy. Polly and her husband were young and inexperienced, and imagined that they had made an original discovery. They were successful in securing just such a place as they dreamed of, and took possession, with the promise of boarders as soon as the season should open. The book is a history of the occurrences and happenings of that summer, and a most entertaining history it is. From the sudden advent and equally sudden departure of Mrs. Vivian Sylvester—who insisted on having a fire lighted every morning to take the chill off the air for the sake of her poodle—down to the close of the season when the curtain falls on the story and its characters, it is full of surprises and humorous incidents. The character drawing is clearly and skillfully done, and the whole book hasn't a dull sentence in it. It is just long enough to be read in a single afternoon, and the laziest man in the world could not possibly go to sleep over it. Mark it down for a sure place in the vacation bundle of books, even if it has to be read before that time. It will bear a second perusal.

TODAYS AND YESTERDAYS. By Carrie Adelaide Cooke. Boston: D. Lothrop & Co. Price \$1.25. This pleasant story is from the pen of the author of *From June to June*, and is intended for the reading of girls who have reached that age when their real mission in life seems to commence; the age when school-days are ended, and the sphere of duty is enlarged by wider acquaintance and new responsibilities. The story opens at a New Hampshire seminary on the eve of examination day, and the principal characters are three girls, school-companions and fellow-graduates. It is not a story of incident, nor does its interest depend upon strong contrasts or vivid descriptions. The narrative is a quiet following out of the currents of these three lives, with their various changes, their joys and sorrows. A strong religious element permeates the book, and it will be found a valuable addition to Sunday-school literature.

THE CLASS OF '70. By Helena V. Morrison. Boston: D. Lothrop & Co. Price \$1.25. Here is a bright, sharp, aggressive book, whose author keenly appreciates the necessity for reforms in church and society, and points out, through the channels of a story, some of the means by which they may be accomplished. Helen Vernon, one of the principal characters of the book, is a high-principled, warm-hearted, quick-tempered young girl, a member of the graduating class of the village

high school in the opening chapter of the story. Among her companions are Trissie Bruce, a good-natured, butterfly sort of a girl; Nell Horton, careless and unmethodical, but clear-headed and true-hearted; Olive Warner, proud, rich, and brilliant; and Rose Nason, quiet and sweet-tempered. These are the principal actors in the drama which follows, the author tracing their different courses after leaving school, and showing the effect of varying influences upon their separate characters. One of the principal objects of the author is to show the weaknesses of some of the methods employed by temperance workers, and to combat the arguments of a certain class of the opposers of the temperance movement. In speaking of a certain class of Reform Clubs, one of the characters is made to say:

"I've seen a *brother* stand outside one of these Reform Clubs for a single transgression, while a few brilliant young men and women sang 'The Old Man's Drunk Again.' In clubs like this the pledge was second to the constitution, and that in turn second to the admission fee, and the subject that agitated the united mind, was how many gallons of ice-cream, and how many cases of strawberries, would supply the next dancing festival."

Again, in speaking of the lukewarmness of many professing Christians, and even clergymen, the author puts the following indignant speech into the mouth of Nell Horton:

"I don't belong to the Church, and I never mean to unless my religion means something more to me than an hour twice a week of sleepy church-going. I think if logic consists in laziness, we have plenty of logical Christians. If I could understand why a little enthusiasm would be amiss in religious work, I should be glad. It seems to me it would warm and give life to the whole spiritual existence."

The author does not mince her arguments, but sets them forth clearly, strongly, and convincingly. She evidently, like one of her characters, "hates all half-way people and methods," and puts into her pen all the strength of her convictions. The book is one that cannot fail of making a strong impression.

DOCTOR DICK: A sequel to "*Six Little Rebels*." By Kate Tannatt Woods. Boston: D. Lothrop & Co. Price, \$1.50. Ever since the publication of that charming story, *Six Little Rebels*, there has been a constant demand from all quarters for a continuation of the adventures of the bright young Southerners and their Northern friends. The handsome, well-illustrated volume before us is the result. The story begins with Dick and Reginald at Harvard, with Miss Lucinda as their housekeeper, and a number of old friends as fellow-boarders. Dolly and Cora are not forgotten, and hold conspicuous places in the narrative, which is enlivened by bright dialogue and genuine fun. What they all do in their respective places—the boys at college, Cora at Vassar, Dolly with her father, Mrs. Miller at Washington, and the others at their posts of duty or necessity, is entertainingly described. The story of the fall of Richmond and the assassination of Lincoln are vividly told. One of the most interesting chapters of the book is that which describes the visit, after the fall of the Confederacy, of Reginald's father, General Gresham, to Cambridge, and the rejoicings which followed. The whole book is full of life and incident, and will be thoroughly enjoyed by young readers.

THE PETTIBONE NAME.

BY MARGARET SIDNEY.

CHAPTER I.

THE OLD HOME ON THE HILL.

DON'T worry so, Samantha; it isn't best to be too particular over a thing if it wears one out."

Miss Judith Pettibone set the plate she had just brought from the buttery on the table, that, spread with snowy cloth and quaint dishes, attested, without the other signs of preparation, that supper was nearly ready in the big kitchen. But the other signs were not lacking; with pleasant melody of the singing tea-kettle, and the crackling of the old back-log, they filled in an harmonious undertone to the two voices.

"That's true as Gospel, sometimes," said a little woman over in the west window, pausing in the act of threading her needle, to give a decisive nod; "an' then again tain't; which is about what you can say of most things in this world. But if I give up a mite o' principle to one o' these seams, there's the whole mischief to pay clear through the dress. Seems as if 'twas bewitched then!"

"It looks innocent enough," said Miss Judith composedly, and bestowing a glance on a pile of brown merino lying on the broad window-seat by the little dressmaker's side.

"That may be," said the little woman, just as composedly, and holding up the waist to take a critical sidewise look along its outline; "but innocent or not, there's enough of the old Adam in that piece o' goods to make me fall from grace a dozen times. There! there goes my needle!"

Down she went on all-fours to peer sharply under chair and table for the least shining of the necessary implement to her trade, uttering so many gusty exclamations as soon brought Miss Judith to her rescue.

"Get another, Samantha," she advised, taking down a tall candlestick from the high shelf over the fireplace. "You won't find that in a hurry. Needles are slippery things at the best."

"I sh'd think they was!" declared the little dressmaker, getting as flat as possible, to sweep her sharp little eyes swiftly over the surface of the old floor, "Yis; an' then jest as soon as I did git fixed with a fresh one, where'd I be, pray tell!" she cried contemptuously, bringing herself up for a moment in a combative attitude. "No better off! Seems as if they couldn't slip an' side enough to plague me!" she added, going down again on the floor with renewed vigor. "I'll find this if I die for it!" she finished savagely.

Miss Judith laughed, and fitted in a new candle, while the prowling went on industriously.

"I never did see jest such a one as this," cried the little woman after a tireless hunt of some moments. "There's generally a little hope to build on; but this beats—oh, here 'tis!"

And she came up bright and shining, and took her seat in the low splint-bottomed chair, to catch up her work triumphantly.

"I'll drop every single stitch of my work jest as often as my needle goes!" she declared, sending the enemy of her peace in and out the gray lining like lightning. "Then see if they get the best o' me!"

"And bite off your nose to spite your face, I should think," said Miss Judith, smiling over at her, "to tire yourself out like that."

"Well, I'll get tired, then," said the little dressmaker, settling a pin where the basting-thread should stop. "That's about as long as the slope ought to be, I guess," she said critically; "an' I'll look out for my nose. Have to, I guess, if I want any! Twouldn't stand many bites," she added with a short lough, so cheerily contagious that Miss Judith couldn't help joining, at the expense of the insignificant member adorning the little dressmaker's face.

"Well, how'll you have the back o' the basque cut?" asked Miss Samantha briskly, coming out of the laugh to business again. "Why don't you have it with them two pleets I spoke of? I'm goin' to cut Mis. Square Higgins's so next week. I would ef I was you; it's all the style now."

"If Mrs. Squire Higgins is going to have hers so, that decided me," said Miss Judith, lighting the candle and putting it on the work-table. "Now, I won't have mine plaited any way! Cut it plain, Samantha, I'd rather go plain as a pipe-stem all my days, than to look like her!"

"You won't look like her," exclaimed the little dressmaker quickly, and ready to bite her tongue off for having spoken; and giving a vicious clip with her big shears to the thick lining, "you can't, no way in this world! The dresses won't be alike! Hers will be on her, an' yours will be on you. Do have the pleets! They're the only thing that'll set it off. I sh'd hate to spoil it."

She looked up imploringly into the face above her, while she took a pucker in the basque-lining that dangled beneath her fingers. "There, you can see how nice it's goin' to look!" she added, while she held it off at arms-length for admiration. "An' you're so tall an' kinder thin, I thought

'twould give you a better figure," she finished persuasively.

"I'll have it plain," said Miss Judith, taking one look. "Mercy! here comes pa, an' supper isn't on!" And she flew to take up the steaming tea and hot corn bread that somehow found their way on the table as the door opened and an old man entered, shaking the snow from his thick boots and rubbing his hands together for the cold.

"I'm afraid you've been too far," said his daughter anxiously, making way for him to come to the fire; and taking a turkey-wing from the projection by the broad fireplace, she proceeded to dust off his coat. "It's snowing quite fast, isn't it?" she said, brushing away vigorously. "How could you stay so long at Deacon Badger's?" she asked a little reproachfully.

"I haven't been to Deacon Badger's at all," said the old man, sitting down, as if glad to find a resting-place, and stretching his hands out toward the comfortable blaze. "I —"

"*Haven't been to Deacon Badger's!*" repeated Miss Judith in astonishment, stopping her brush from chasing the snow-flakes, to look into her father's face. "Why, that's where you said you were going when you went out from here."

"Well, I did mean to," he replied, sticking out first one boot and then the other to share the blaze with the hands, "but I stopped at the woodshed a mite — the further one, you know — to see how things was in there, an' the wood was all at sixes an' sevens. That Sam wants lookin' after, Judith; an' I —"

"Now, pa," cried his daughter, coming with one step as far in between him and the fire as she could get, "you *haven't* been piling that wood, have you?"

"Why, jest a little," mumbled the old man, and not meeting her eye. "It looked so bad, Judith, I couldn't help it."

"Well, I *shall* give up now," cried Miss Judith, leaning against the jamb and speaking in the accents of despair, "if you've been stretching and straining over that wood. With your poor health, pa! Why, I don't know *when* you've done such a thing!"

"It looked so," repeated the old man feebly. "'Twas all sixes an' sevens."

He added this as if producing an entirely fresh remark.

"That's because I took Sam off to go over to Boxville with those potatoes," she cried quickly. "To-morrow morning he was to tackle the wood, with several other jobs. Well, there's no use talking," she exclaimed briskly; "when the mischief's done, it's done. Now, you must take a sweat and get to bed, and see what that'll do!"

She hurried over to a small corner cupboard, where sundry helps in the medical line were always kept for times of need, and began rummaging among the dried herbs and collection of bottles stored therein.

"I don't want any sweat," said the old man obstinately,

and pushing back his chair to look at the supper table. "I'll take a piece of your nice johnny cake, Judith, an' a cup o' tea; that's all I want."

"Ginger tea's the best," remarked the little dressmaker, biting off a thread, and bobbing her head wisely; "that'll take the cold out, an' unstiffen your bones, Mr. Pettibone. It alwus does mine."

"I ain't got any cold in my bones," said the old man querulously, and getting up from his chair to hobble with difficulty to the head of the table. "An' I won't take no ginger tea nor nothin' of the sort. No, I won't, Judith!" he declared decidedly, seeing her advance, a bottle in hand, with her eye on the big spoon-glass. "An' you needn't think I will. Come, Miss Scarritt, put up your work an' set up to supper."

Miss Judith, seeing it useless to urge her favorite remedy, or any remedy at all, wisely held her peace, and, taking her place behind the big tea-tray, proceeded to pour out for him as scalding a cup of that beverage as was possible. Miss Scarritt skipped nimbly into her place, and the lengthy grace began.

They had scarcely composed themselves to the refreshment of the meal and the village chat that always accompanied it, when the outer door was heard to open, and then steps sounded out in the little back entry.

"It's John, probably," said Miss Judith; "that's nice; come in, John, and have some supper," she cried cordially.

"Tain't John," said a voice, as a fur-cap was thrust in the kitchen door, enveloping a white face. "It's me."

"Oh! Mr. Folinsbee," cried Miss Judith. "Well, come right in and have some supper with us." And she got up for another plate, cup and saucer.

"Yis; come right in and have some o' Judith's johnny cake an' a cup o' tea," said old Mr. Pettibone, putting out a trembling hand of welcome, and smiling in a pleased way.

"I couldn't eat a mouthful if I was to be shot," said Mr. Folinsbee, twisting his hands in great excitement, and staring out of two eyes that looked as if they were on the point of bidding good-by to their sockets forever.

Miss Scarritt set down her tea-cup, and fastened her sharp little eyes on his white face.

"Yis," said Mr. Pettibone sociably; "you must take a bite o' Judith's johnny cake. Tain't often, neighbor, you git such johnny cake as hers, unless it is Mis. Folinsbee's," he added with a tremulous laugh at his own pleasantry. "Judith, why don't you git him a cup o' tea, daughter?"

Miss Judith, on her way from the old dresser, hospitably intent, nearly let fall her burden of crockery at sight of the visitor's face, as he now began to waive off all efforts toward his entertainment.

"I can't; don't ask me," he cried, shaking his fur-enveloped head at one and another helplessly. "I've jest stepped in to tell you the news! Hain't you heard it?"

"No," said Miss Scarritt, eagerly leaning over the table, and craning her neck to catch every syllable, "We ain't heard the first word. What upon earth is it?"

Miss Judith put up one hand, to stay any dreadful recital. Too late!

"Yis, yis!" cried Mr. Pettibone. "What is't? Why don't you tell on?" he added impatiently.

"Square Higgins is dead!" said Mr. Folinsbee, without the least preamble and twisting his hands worse than ever.

"Oh, my goodness me!" exclaimed the little dress-maker, nearly tumbling out of her chair.

Miss Judith put down the crockery on the table and went swiftly around to her father.

"What is it, neighbor?" asked old Mr. Pettibone solemnly, while he fastened his eyes on the white face under the fur cap. "Tell it all! When did he die, an' what was the matter with him?" He rested one thin white hand on the table-cloth, while the other grasped the arm of his chair for support.

"Took with a fit, I s'pose," said Mr. Folinsbee, who, now that he had begun, saw no reason for withholding any information in his power. "Leastways, he was found in his barn about an hour ago, stone dead."

"Puttin' out his horse, I s'pose," said the little dress-maker, recovering with a gasp, and sitting upright again. "He's too mean to keep a man, as he'd orter. Mis. Higgins has teased him to a hundred times. I've heard her when I've been a workin'—"

"In the barn," assented Mr. Folinsbee, with a bob of his round head, his fur-cap still having the honor to adorn it undisturbed, "an' he—"

"*Make it as short as you can,*" whispered Miss Judith, going back of their neighbor's broad shoulders, under pretext of wanting to look at the clock, "*for mercy's sake, on account of pa!*"

"An'—an' they brung him in—Miss Judith, how *can* I tell it!" he exclaimed, breaking off abruptly, to look reproachfully at her. Then he sank into a chair. "I'm sure *I* don't want to scare him no more'n you do. Tain't *me's* to blame; it's the fit."

"I wonder how he has left his affairs," said Miss Judith carelessly, and speaking as fast as she could, to stop any further remarks on Mr. Folinsbee's part. "I hope Mrs. Higgins and the children are looked out for."

"Well, that's the worst on't," said Mr. Folinsbee, going off animatedly into this new direction. "I don't believe they are. In fact, I wouldn't be afraid to bet—ef I warn't a perfessor, an' I had any money to stake—that every single thing goes to that eldest son."

"Why, I sh'd like to know why!" cried the little dress-maker, leaning as far over the table as she could, and fixing her small gray eyes on Mr. Folinsbee's countenance. "The idea—such a scape-goat as he is! an' he hain't ever done a thing to earn a cent neither!"

"Scape-grace, you mean," corrected Miss Judith. "Well, I should like to know, too, neighbor."

"Scape-grace or scape-goat, tain't any matter which," said Miss Scarritt, not minding in the least the correction. "Tain't any time now to pick and choose words when you're a-talkin' about Cyrus Higgins. What in the world's that for? Do tell!" she demanded eagerly.

"'Cause he never made no will after he married Mis. Higgins," said Mr. Folinsbee, crossing his left leg over its right companion, and with the attitude becoming conversational at once. "His fust wife left it all to his son. That's what I heard some time ago; an' I don't b'lieve he's done it sence. He was alwus a-goin' to."

"Alwus a-goin' to," repeated Miss Scarritt, in the greatest scorn, while her little nose wrinkled up what end it had indignantly; "don't I hate an' de-spise those folks who are alwus a-goin' an' never go? Now, I hope he's comfortable!"

She gave a savage jerk over toward the butter-plate, took a piece and spread it fiercely on her bread, as if she could as easily flatten out certain opinions and people if she had them under her thumb.

"He shouldn't a done it!" exclaimed old Mr. Pettibone with a great exhibit of interest, and tremblingly waving his head over toward his visitor. "No, neighbor, he shouldn't. He'd ought to have looked out for them as made a home for him, an' kept everythin' comfortable around him. Cyrus hain't never done anythin' for him. He shouldn't a gone an' left things so," added the old man reprovingly, as if apoplectic fits were luxuries not to be indulged in too carelessly at short notice.

"Of course he shouldn't," declared Mr. Folinsbee decidedly. "Well, he's gone now where he won't have to hurry up an' tend to things. He'll have plenty of time to set down an' think; so there's no use in talkin'. An' I better be steppin' along home, for I don't b'lieve Mirandy's heard the news. I shouldn't a-stopped, only I thought maybe you hadn't any of you been out; an' I felt so upsot, that I declare for't, if I didn't want to rest a bit somewheres."

"No, he shouldn't," said Mr. Pettibone, with as much confidence as if expressing his opinion for the first time; "'twas a wicked thing to cut off his wife an' all those children—a very wicked thing!" he added, with righteous indignation.

"Well, good-evenin'," said Mr. Folinsbee, rising to resume his journey "Mirandy-ward." "It's a warnin' to all of us to do what we've made up our minds is to *be* done, right slap off!" he added, nervously proceeding to the door.

"We shan't none of us take it, though," said Miss Scarritt coolly. "I don't s'pose warnings ever scat folks into doin' of their duty, like a stick does shook at a dog. The world will wag on jest the same, Mr. Folinsbee, ef all the Square Higginses should drop in their barns; 'twould! Not a mite o' difference!"

"I s'pose not; s'pose not," assented Mr. Folinsbee, shaking the fur-cap solemnly at them all once or twice.

"Well, good-evenin', good-evenin'." This time he was gone in earnest.

The door had scarcely closed on his retreating figure, when old Mr. Pettibone got out of his chair and went over to it, carefully feeling to see that it was tightly shut.

"Judith," he said tremblingly, as he came slowly back to his seat and met his daughter's eyes fastened on him in utter astonishment, "I've done right by you; yes, I have. You've been a good daughter to me—the best of daughters," he added, choking a bit. Then he tried to go on.

"O father," cried Miss Judith, turning very pale, and going up to his side to lay her hand on his white hair soothingly; "don't say another word; don't!" she begged. "This news has upset us all," she went on, smoothing his forehead gently, "but we shall feel better when we've had a little chance to get over it. I wouldn't think any more about it."

She tried to smile cheerily.

"But I must think—I want to think!" cried the old man, turning his head suddenly to look up into her face. "An' I shall say what is on my mind, daughter," he added with dignity. "No, you can't prevent it; so listen!"

She stood holding her hand protectingly on the head so dear to her, now white with age, as if she would give her life to shield it from every anxious thought, and listened to the words that fell with great distinctness from her father's lips.

"I've provided for you, child, abundantly. You know that I made my will some time ago—before John was married, givin' him the homestead an' the property with the care of you. He's a good boy—a very good boy," said the old man with a touch of pride, "an' I make no manner o' doubt that he would have taken care of you as nice as I could. But now he's gone an' got married, an' got a lot of children why, 'twon't do to resk it; an' I've gone an' changed round about that will an' made you the one, as 'twas right it should be, that is to get the property you've done your best to take care of an' save all these years—"

She made an effort to speak just here—that tall, strong-featured woman, who looked as if self-control could fold those thin lips into utter silence, that now were impelled to let the voice within be heard.

"Don't talk," he said almost sharply; "I shall say it. It's been on my mind for some time, an' to-night I'm determined to speak. Don't go, Miss Scarritt," he begged, hearing a movement on her part, as if she were picking up her things for departure. "You're an old friend, an' I guess anythin's safe with you. An' besides, I don't know as it's any harm who hears it, after all."

"I better be out of the way, though," mumbled the little dressmaker, picking up her thimble and tying her needle-book fast. "I'm in an awful hurry, Mr. Pettibone, to-night," she added, beginning to bustle around for her rubbers.

"You can stay for a moment, I sh'd think," said Mr. Pettibone feebly, "to gratify an old man who's known you ever since you was a baby."

"I'll stay a thousand hours," cried the little dressmaker, trotting up to his chair, and looking first at him and then at the pale face above him, "if you want me to. I guess I will! After all you've both done for me, an' for those that's gone before," she finished, putting up with a quick

hand her little brown work apron to the small gray eyes, "it's a poor story, if I can't oblige you!"

"Judith," said the old man, looking at her with a world of affection in his gaze, "everything's to be yours, except what little I could spare to help John out. The will is in that little black box on my bureau, under the lookin'-glass. I had it drawn up two year ago, over to Boxville. Poor lawyer Stubbs, he's gone—yes, he's gone!"

The old man seeming about to fall into a train of recollection, Miss Judith motioned silently for the little dressmaker to go.

"Well, I s'pose you won't want me to come to-morrow," said little Miss Scarritt, as blithe as a bee, "so I'm a-goin' to run down now, on my way home, to see Mis. Square Higgins. She'll set a lot by mournin' clo'es, an' of course she'll want 'em right off; an' I s'pose you ain't in any hurry to get your dress done." She glanced over at the pile of work folded up for future struggles. "Now, you can have the pleets if you want 'em," she added, as a sudden thought struck her; "tain't noways likely she'd want 'em now. I shan't recommend 'em, anyway."

"You needn't come," said Miss Judith, ignoring plaits to speak quickly. "I'm in no hurry to have my dress done. I can wait a week as well as not."

"An' if I was you," said little Miss Scarritt, running back to old Mr. Pettibone's chair after putting on her bonnet, and taking out a pin from her mouth to fasten the string, "I'd hop into bed, bright and lively, as soon as I could. I'm kinder shook up myself," she added, while her little keen gray eyes looked as solemnly apprehensive as it was possible they could, "An' folks who ain't very strong, why, it comes tougher on them. Good-night, Mr. Pettibone; an' ef you would take a swaller o' ginger tea, it wouldn't hurt you none. It'll chirk you up, an' make you forget everythin' onpleasant."

Miss Judith followed the little dressmaker out into the cold, dark entry. Then she put both hands on the little thin shoulders, and turned her squarely around.

"Samantha Scarritt," she said, "I've known you—always. Now, not one word of what you've heard this night ever passes your lips. Promise!"

"It's dretful to promise a thing," said the little dressmaker, while she tried to squirm away from the firm hands, wriggling all over. "I may want to tell some time; an' besides, p'raps tain't right for me to say I won't."

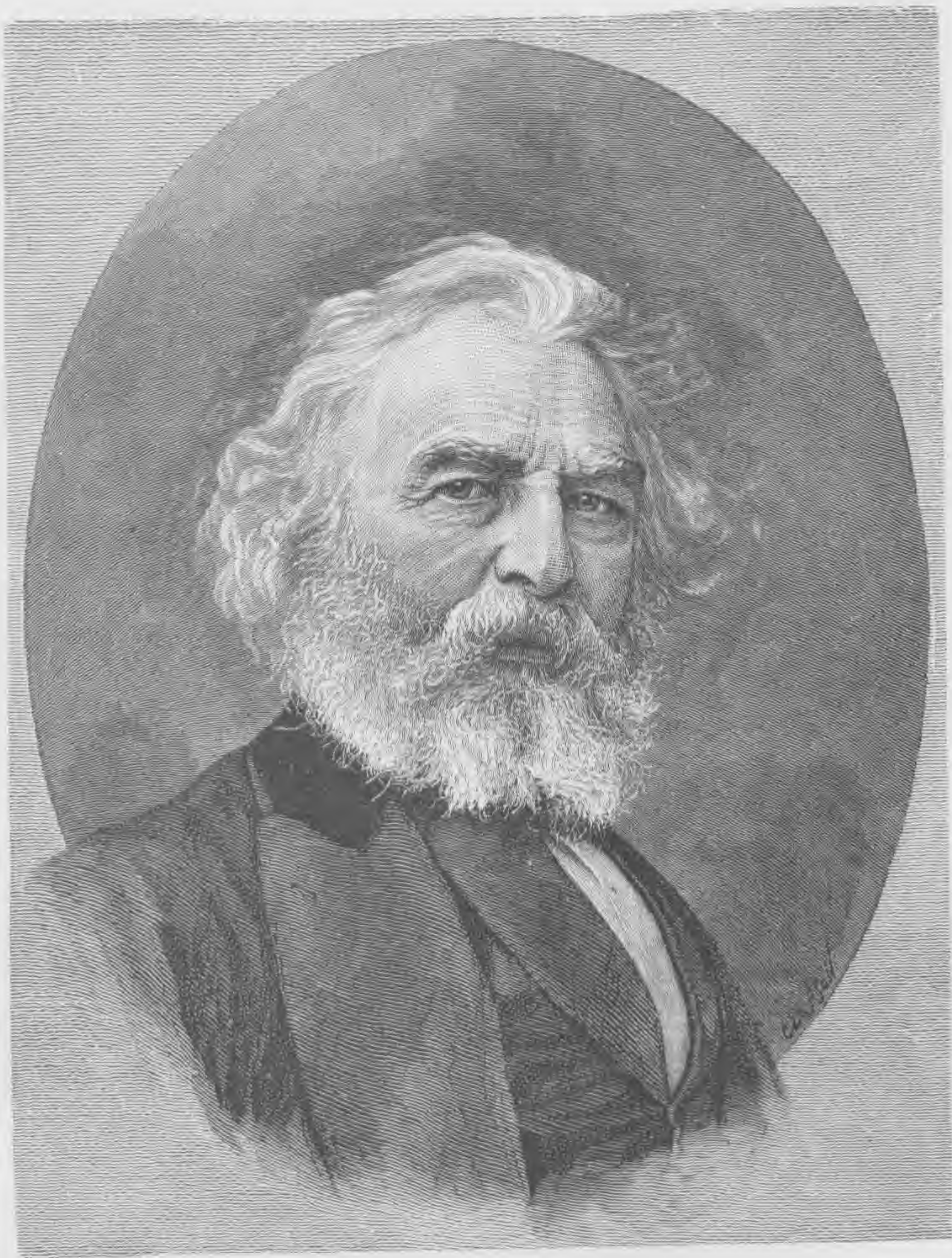
"You never will tell," said Miss Judith, with her clear eyes on her little friend, "if I don't want you to. I never shall ask you but this one thing, Samantha. Promise!"

She towered up above her so very tall and commanding, that the little dressmaker craned her neck to stare into her face.

"Oh, mercy, yes!" she exclaimed. "I'd promise you anythin'; only don't look like that! I'll never tell, as true's I live!"

A dull, heavy noise, as if some large body had fallen suddenly, struck upon their ears, sending an undefinable chill through their hearts. Miss Judith tore off her hands from their resting-place, and fled, with agonized dread, back through the entry and into the old kitchen, closely followed by the little dressmaker, wringing her hands, and exclaiming in terror at every step.

Old Mr. Pettibone lay upon the floor, just as he had fallen, in the attitude of repose. And it was repose, dreamless and deep. For, when the two women raised him, they looked upon the face of the dead.



Henry W. Longfellow.

BORN FEB. 27, 1807. DIED MAR. 24, 1882.

THE POET AND THE CHILDREN.

BY JOHN G. WHITTIER.

With a glory of winter sunshine
Over his locks of gray,
In the old historic mansion
He sat on his last birthday,

With his books and his pleasant pictures
And his household and his kin,
While a sound as of myriads singing
From far and near stole in.

It came from his own fair city,
From the prairie's boundless plain,
From the Golden Gate of sunset,
And the cedarn woods of Maine.

And his heart grew warm within him,
And his moistening eyes grew dim,
For he knew that his country's children
Were singing the songs of him :

The lays of his life's glad morning,
The psalms of his evening time,
Whose echoes shall float forever
On the winds of every clime.

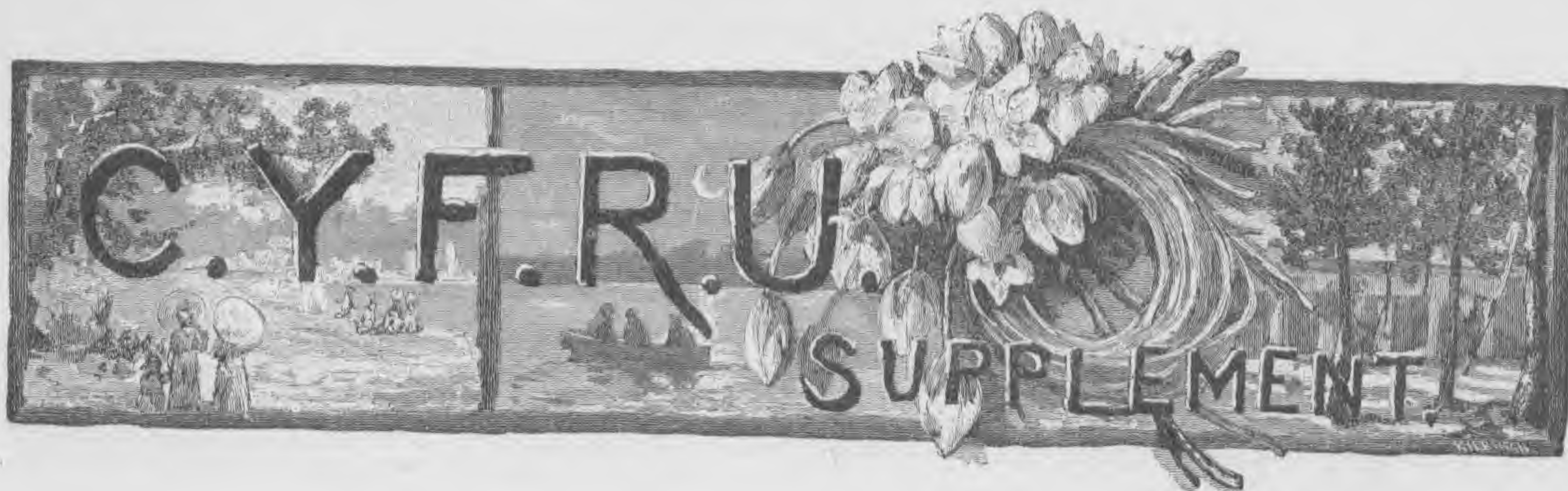
All their beautiful consolations,
Sent forth like birds of cheer,
Came flocking back to his windows,
And sang in the Poet's ear.

Grateful, but solemn and tender,
The music rose and fell
With a joy akin to sadness
And a greeting like farewell.

With a sense of awe he listened
To the voices sweet and young ;
The last of earth and the first of heaven
Seemed in the songs they sung.

And waiting a little longer
For the wonderful change to come,
He heard the Summoning Angel
Who calls God's children home !

And to him, in a holier welcome,
Was the mystical meaning given
Of the words of the blessed Master :
"Of such is the kingdom of Heaven !"



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

VIII.—AT THE TOE OF THE BIG BOOT.

BY SUSAN COOLIDGE.

IF you look at the map of Sicily, you will find a city of Syracuse marked upon it. It stands where the old city of which I write stood, but is not the same place at all, but a comparatively modern town, built upon and among the ruins of the former Syracuse. It is a small city of about sixteen thousand inhabitants, whereas the ancient Syracuse in its best days had a population of nearly or quite a million. It was, in fact, five cities built closely together on a knob or tongue of land between two fine bays, and on the hills and cliffs behind it. One of the bays, the great harbor of Syracuse, was nearly landlocked by an island which lay across its mouth; the other was called the Bay of Thapsus. The highest part of the city was named the Epipolæ, and a strong wall round the whole defended the place.

Athens was the most powerful city of the world at that time, 416 B. C., and the citizens of Syracuse were talking much of her because she had just made an alliance with Ægesta, a town in Sicily, which was at war with Syracuse. A droll story was common among them, told by Eglon the metal-worker, of the deception practised by the Ægestans upon the Athenian commissioners; how they had borrowed all the gold and silver dishes and vessels from the neighboring cities, and at each entertainment had this mass of treasure smuggled in at the back door to give the Athenians the idea that every citizen of Ægesta was enormously rich, and the wealth of the whole town almost incalculable. Everybody laughed, but no one felt at all like laughing when, a few months later, the successful deceit bore fruit, and the great Athenian fleet sailed into the harbor of Syracuse; one hundred and thirty-four war-galleys, besides numerous store-ships, with a vast force of warriors, slingers, and bowmen.

Three generals were in command of the Athenian

fleet. One of them, named Nicias, was held in much esteem among his countrymen for wisdom and respectability. He makes me think of some generals whom we knew about in our own war. A capital soldier whenever he made up his mind to do anything, he was timid, vacillating, fearful of making mistakes, altogether destitute of dash and vigor. He was superstitious also, and easily alarmed by omens and signs, and, as will be seen, partly from slowness of understanding, and partly from constitutional caution, he once and again let chances slip by unimproved, which might have given him the victory.

The second general was named Lamachus; but as he was killed soon after the siege began, we need not say anything about him.

The third general was Alcibiades, who has been called "the Bolingbroke of antiquity," and "the most perfect example of genius without principle that history produces." It seems to me that he might with equal propriety be called "the Benedict Arnold of antiquity." The three generals pulled in three different ways from the outset, as a divided authority almost always does. Alcibiades wanted to attack at once; Nicias as usual hesitated and delayed, and after a little drew his troops off and made a demonstration on a different part of the island.

But by and by the galleys came back, and General Nicias, slow and sure, began to build a high double wall round the city, so that no one from without could get in, and no one from within could get out. The space between the walls was roofed over to make barracks for the troops. The galleys watched the harbor mouth, and as soon as the wall was done the Athenians proposed to sit down quietly like cats at a mouse-hole, and wait till their prey was starved out. All this was a very pretty plan, and it would undoubtedly have been successful, except that unfortunately somebody outside the wall was working hard against Athens. And who do you think this somebody was? No other than Alcibiades.

For Alcibiades had left enemies behind him at home, and they had hatched a plan for his ruin. They accused him of sacrilege, and the Senate ordered him to return for trial. This he was too wary to do. He disobeyed the order, and was sentenced to death for doing so; whereupon, bitterly angry, he said, "I will show them at Athens whether I am dead or not." And he fled to Sparta, which was one of the chief enemies of his country, and bent all his energies to stirring up the Spartans to send relief to Syracuse. He made many eloquent and artful speeches, betrayed the secrets of the Athenian leaders, and warned the Spartans that if they neglected this opportunity, their turn would come

stopping, but it brought the news that Gylippus was at hand, and that changed everything. The very name of Sparta put courage into the Syracusans. And they decided to defend the city to the last.

Gylippus wasted no time. He was of quite a different temper from Nicias. While the latter hesitated what to do, he pounced on the Epipolæ, and lo! the Athenians became the besieged instead of the besiegers, for they were penned into the low grounds by the harbor mouth, while Gylippus commanded the heights above. Then he made a dash, and captured the fort where the Athenians had stored most of their naval supplies. The double wall did little good now. Gylippus and his troops marched into



A DIREFUL DAY FOR SYRACUSE.

next and they would rue it when too late. His warnings were listened to, and the Spartans sent one of their bravest generals, Gylippus by name, with a squadron of vessels to land on Sicily and raise a force for the relief of Syracuse.

That city meanwhile was in a desperate condition. Nicias had finished his double wall, all but a few feet, provisions were growing scarce, and an assembly had actually met to discuss the terms of surrender, when a galley came dashing into the harbor, and, avoiding the Athenian vessels, rowed for the town.

Ah, it was the old story over again of the kingdom lost for the lack of a horse-shoe nail. Nicias was so sure of his victory that he had slackened discipline, and his men had grown careless. The one little galley splashing across the harbor had not seemed worth

the city through the gap still unenclosed, and the Syracusans marched out.

But though Nicias had blundered, Athens was still unsubdued, and her wrath was terrible. On hearing the news, she lost not a moment, but made haste to raise another force to go to the relief of the first, a force almost as strong as that had been. It was a direful day indeed in Syracuse when the terrible new fleet came sailing into the harbor, seventy-three great war vessels, with eight thousand soldiers on board. The ships were painted on the outside with splendid pictures. Flags flew from all the masts, armor glistened in the sun, music sounded from the decks, and the shouts of the crews were answered by the shouts of the army on shore. The general in charge of the fleet was Demosthenes, not the

famous orator, but a brave soldier of the same name, who was almost equally famous in his day.

And now indeed the crisis was come. The first effort of Demosthenes was to regain the Epipolæ, which he at once saw to be the key of the position. Under cover of the darkness he led his troops by night round the base of the hill, and climbing the sharp cliffs at the back, surprised the Syracusan outposts on the summit, drove them from their entrenchments, and marched down toward the city, sweeping all before him. The darkness, the surprise, favored him. Gylippus in vain sent re-inforcements. Half an hour more, and it seemed that the Athenians must take Syracuse.

Only one regiment stood firm amid the flying Syracusans. This was a brigade of Beotians, posted near the base of the slope. They not only did not flee, but re-formed their lines and charged the Athenians, who, demoralized by success, were taken by surprise and fell back. This brought confusion to the rest of the Athenian army which was pressing down behind them. The confusion became a hopeless tangle. The uncertain light deceived them. Friend could not be known from foe. Athenian attacked Athenian, the Syracusans rallied and charged them hotly, driving hundreds of them over the cliffs, where they perished miserably. When morning dawned the Athenian host was a wreck, and the power of Athens broken, never to be restored.

The galleys were safe still, and, in spite of the defeat, a formidable force of Athenians survived; and had Nicias set sail at once for home, Athens might still have had a chance to rally. But Nicias never did anything "at once." He was very superstitious, as I told you, and unfortunately there was a total eclipse of the moon just then, and Nicias took it for an omen, and delayed sailing till he should see how the moon looked at the corresponding time next month. Meanwhile the Syracusans occupied themselves in blocking up the harbor, so that when Nicias at last got the moon's permission to start, the ships could not get out.

The rage of the other commanders and of the

soldiery can be imagined. They clamored indignantly to be allowed to fight, and Nicias was forced to yield. The Syracusans had galleys also, lighter and more manageable than the great war-ships of the Athenians, and more easily handled in the harbor where the vessels were pent. A great naval battle, one of the greatest that the world has ever known, took place, and its result was the complete destruction of the Athenian fleet. Only that portion of the army which was on shore was spared, but this amounted to nearly forty thousand men; and had Nicias the Unready marched at once, that very night, he might at least have got this remnant of his command off in safety.

Gylippus knew this, and he knew too that the Syracusans were so intoxicated with triumph, so deep in feasting and in offering joyful sacrifices, that he could not induce them to fight or to pursue till the revelling was done. So he traded on the well-known weakness of Nicias, and sent persons to advise him in a friendly way to delay his march because the Syracusans had seized the passes. Poor simple Nicias believed, and sat still, and next day the Syracusans *did* seize the passes. The Athenian army started, but it found the bridges cut, the fords defended; every step had to be fought, everywhere were enemies. The retreat became a disorderly flight, the troops were slaughtered by thousands, the generals were taken prisoners; only a scattered few of the great host ever saw their native shores again.

So complete was the defeat that for a long time Athens remained in ignorance of her ruin. No one returned to tell the tale. It was finally made known by the lips of a stranger, who, sitting in a barber's shop to be shaved, mentioned it as a bit of news which of course every one must already know. The barber rushed into the street with cries of horror, the magistrates met, and the stranger was just being put to the torture to make him unsay the truth, when messengers arrived with the tidings.

NOTE. — For a fuller account of the siege of Syracuse see Thucydides history of the Peloponnesian war, Plutarch's lives of Nicias and Alcibiades, Creasy's Fifteen Decisive Battles of the World, and Grote's Greece, vol. vii., pp. 142-352.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

VII.

CHICKAREE AND CHIPMUNK.

SQUIRRELS are fond of black cherries—did you know that?—and, like other sensible

beings, squirrels wait until the cherries are ripe.

One year, early in September, we used to hear unaccountable droppings and clatterings on a neighboring roof. It was as if little hail stones were being let fall, one at a time, on the shingles, which they would strike with a smart rap, and then go rolling

down to the eaves and drop off; or as if elfin combatants were keeping up a fusillade with firearms of very small calibre; or as if Hop-o-my-Thumb were popping away with a pea-shooter. The roof which was just opposite our chamber windows, twenty feet or so, and on a level with them, was haunted, or else the tree-top above it was; and an elm tree does not shed anything that sounds like gravel-stones.

After an amount of speculation which would have done credit to the famous Peterkin family, we took measures to ascertain the cause, and came to the knowledge that the missiles with which all this pelt-ing had been kept up were cherry-stones. Now there was a black cherry tree around at the other side of the house, which was just then resorted to by many birds of many kinds. But the birds stayed by while they ate. It had always been their custom to drop the stones from the tree where they grew; so we had too abundant evidence from year to year in the crop of seedlings which came up.

These were cherry-eaters of another kind. Not to make too much ado, they were red squirrels. They would fill their cheeks (which hold a great deal, and are as convenient as a boy's pockets), then skip across the house roof to an apple tree, thence to the other roof and up into the elm, where, safely ensconced out of sight, they would have the jolliest time that two squirrels ever had. It was just like having a basket picnic all by themselves. And if they were as roguish and knowing as they looked, must they not have enjoyed seeing those stones go rolling down, and our astonishment thereat?

We pretty soon began to know them more intimately. The aforementioned apple-tree, which spread from roof to roof and tried its best to grow in at our windows, bore "pumpkin-sweets." And when the cherry crop was gathered (the birds and squirrels made quick work of it), our new acquaintances began on the apples, making bold to come almost, but not quite, within arms' length; and there they would sit and munch and munch and munch. How they did relish those apples! Of course they were obliged to eat them on the spot. You all know what a generous size the "pumpkin-sweets" have, and that by the middle of September they are fully grown, too large for a squirrel to carry far. Chickaree would grasp one with his fore-paws, and, sitting up on his haunches, make an opening with those long fore-teeth, and devote himself to the business of having a good solid meal, keeping his eyes on us, and ready to whisk off at the least alarm.

One of the pair soon after had a terrible scare, and his vaulting powers were put to a tremendous test. It was fortunate for him that he was such a leaper. You are aware that squirrels will spring in what seems a most reckless way from one tree to another, trusting to their momentum to land safely. This habit is so well known that an ancient hunting forest of the English kings was described as being "so closely wooded that a squirrel could have leaped

through it from end to end, and from side to side, without being obliged to touch the ground."

The affair happened in this way: we heard a great scolding from a robin who was in such a fury that we went out to see what the trouble was. It seemed that she had had a late brood in the fork of a small elm whose branches spread above the house-roof, and the squirrel had started to go up by that route, to the cherry-tree, as he had a right to. Happening to be at home, Mistress Robin disputed his right of way, and the panic-stricken squirrel did not dare to go up nor go down. She menaced him and stormed at him, and attempted to peck him, and he would dodge her by running around the trunk. As she tried to head him off he would appear on the opposite side; and when she would follow, his tail was just vanishing. She was as exasperated as he was terrified; and she kept up a screaming enough to raise the neighborhood.

This went on for some time, and then the squirrel suddenly made a strategic movement. He must have taken in the situation, and calculated on his chances before doing it. He made a spring and landed in a large shrub, one of a row along the whole garden-front. Then he was safe for that distance, and we saw him go first into one and then another, syringas, barberry-bush, lilacs, snow-ball, till he reached the corner, the bird keeping along, and screaming and darting at him every time he came out of shelter.

His purpose was to follow up the other side to gain the covert of some thickly shaded terraces at the back, and there escape to the barns and sheds beyond. But along this other side the way was perilous. There was not a bush to screen him, and though there was a row of seven apple trees, in some instances the trunks were far apart, twenty and twenty-eight feet. However, he was equal to the emergency. He turned the corner by leaping to the top of the picket fence; then he was up in the first tree; and then he was down running on the fence again, then in the next tree; and so on, till harassed and worried, and almost exhausted, with dilated eyes, and terror in every movement, but victorious, he came down on terra firma, and went racing off and was lost under a pile of boards. Not till then did this virago of a bird give up the chase. Her mate had appeared from somewhere, towards the last of it, and added his screaming, and the two returned together to the elm and had a noisy dispute about it.

I don't know why this pretty red squirrel of the Northern States is called "Chickaree"—that is one of Audubon's names for him—but no doubt some of you young people of inquiring minds who are eager to know a reason for everything, can find out. He is also known as "Pine Squirrel," probably because he is fond of the seeds in the cones of evergreens. A very close observer of his ways says, "The red squirrel should be drawn with a pine cone."

Perhaps, too, you will see whether dear old Peter Parley was really *sure* about it when he gave us to

understand that the red squirrel turns "perfectly gray" in winter! There is another thing: about those two long fore-teeth of squirrels. Is it an absolute necessity that they should gnaw hard things like walnut shells, or else they will grow out of shape, or into the jaws, for want of the right kind of material to grind upon? Something of the kind has been hinted at. A taxidermist told me that he had stuffed squirrels whose fore-teeth had begun to grow into the mouth; and the presumption was that if they had had hard shells or other things to gnaw upon and keep them worn down, this would never have happened. I leave it for you to find out.

Gilbert White, the naturalist of Selborne, says that the squirrel, the field-mouse and the nut-hatch have each a different way of opening a hazelnut. Is that so? The mouse, he says, nibbles a small hole in the shell, and manages to extract all the meat through it; the bird fixes the nut fast in some crevice or cleft, and pecks away at it till a ragged opening has been made, so the bill can be thrust in; but the squirrel rasps off the small end, then "splits the shell into two with his long fore-teeth, as a man does with his knife." You must have often seen an acorn which had been evenly split; and if you will examine the shells to be found under any nut-trees, you will see that there are a good many ways of getting the meat out without using a hammer.

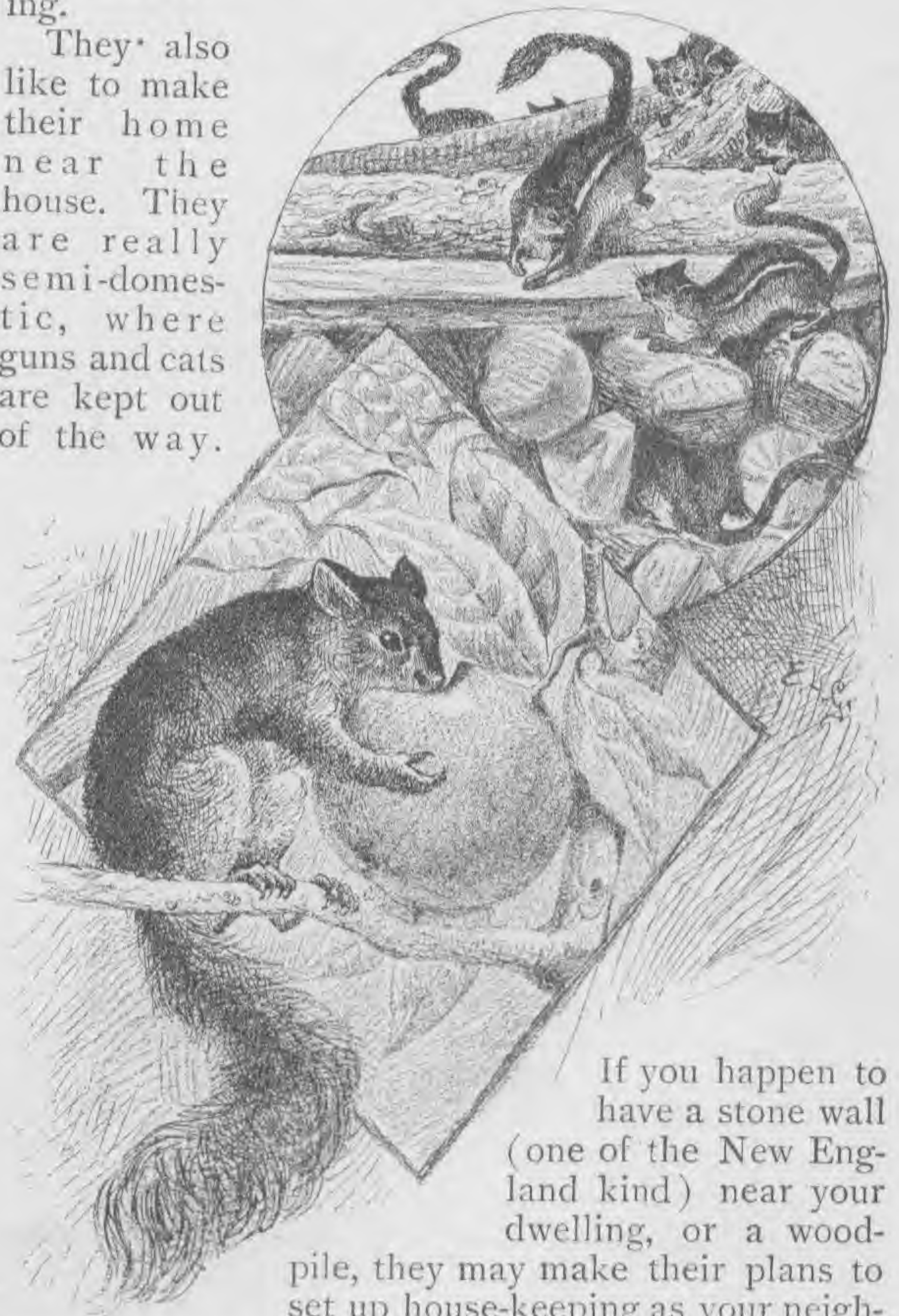
The bills and claws of birds, the teeth and paws of the four-footed animals, are implements which are as useful to them as a whole box of tools is to a boy. The woodpecker carries in his own head all the boring and gouging tools he needs, and a hammer to rap with besides. And the beaver has a saw in his mouth with which to cut off the timber for his dwelling, and he uses his tail for a trowel to carry mud on and to plaster it with. And are there not carpenters, tailors and weavers among birds?

Little Chipmunk (he has the queer name of "Hackee," too, which I do not know how to account for) has a good character in these parts for being such a "provider." He looks out in season for his winter supplies, and works hard. We surprised one last November almost in the very act of getting the acorns into his cellar. His tenement was snug and warm down in the underground part of a stump. He had come up and was resting on his house-top; his tail was curled under him in such a way that we actually thought he had not any. He seemed lost in thought, and we watched him a long time, till, happening to rustle a leaf, he caught the alarm and disappeared down in the stump as quick as lightning. But all things will come to you, says some proverb, if you will only wait. In about five minutes he ascended by a back stair-way, but spying us still there he remained just where he was, as a fly hangs against a perpendicular wall. He kept his lustrous, expressive eyes on us, and did not stir so much as a whisker. What a marvellous faculty of keeping perfectly motionless he had! You might have even believed

that he was holding his breath. He soon gained courage, and proved his confidence in us by getting ready to start for another acorn, when what should my companion do but sneeze and spoil it all! That was the end of it.

These lovely striped squirrels enjoy coming about the houses, slipping into the granaries and open garret windows and pilfering corn to lay away for winter. And I think that it has been proved beyond a doubt that before storing it away, they deprive the kernels of the "chit" or germ, to prevent it from sprouting, which shows a wisdom that one cannot help admiring.

They also like to make their home near the house. They are really semi-domestic, where guns and cats are kept out of the way.



THEY BEGAN ON THE
APPLES.

If you happen to have a stone wall (one of the New England kind) near your dwelling, or a wood-

pile, they may make their plans to set up house-keeping as your neighbors. A real old-fashioned farmer's wood-pile is the best place. Country boys and girls who have had playhouses and kept school and had such "nice times" upon one of those generous piles of cords and cords of wood in such tiers along the door-yard, know just what ins and outs, what openings and hiding-places, there are among the sticks.

To such a wood-pile came one winter two pairs of chipmunks. They raced and they scampered over and through it; they looked it over; they peered into it; they liked it well; and they stayed, and became pets of the house. The crumbs shaken from

the table-cloth "toled" them along, as old people say (it is a dictionary word, and means "to draw," or "produce an effect by insensible degrees"), until they would come regularly to the piazza at meal-time.

In the spring each pair built a nest, away in out of sight and beyond reach, and reared a family. And it was great fun to see the performances with the little ones. They would thrust their heads into sight and dart back, and appear in another place. It was a spirited game of "now you see me and now you don't," the parents joining in, and frolicking as a cat will with her kittens. There was a great deal of good feeling between the families; and such friendly chirps, and calls, and purrings, and chuckles, and loving

little chatter! Such racings and chasings, such skurrying, and scampering, such frolics at hide-and-go-seek! And how pretty those squirrellings were with the regular, finely drawn, parallel lines of black along their slender buff-brown backs!

The young ones came with the old to get crumbs; and all went well with them until the wood was removed into the shed, when their home was broken up. It was like being turned into the street. They found places of retreat about the buildings and in holes in the apple-trees; but there was no longer a stronghold beyond the reach of cats as the interstices of the friendly wood-pile. The cats had the advantage now, and the squirrels were too confidingly tame.

The sequel may as well remain untold.

OLD OCEAN.

BY ERNEST INGERSOLL.

VI.

WAR-SHIPS AND NAVAL BATTLES.

THE ancient mode of fighting has been told in the last chapter; but I did not make it plain that all those old armaments were furnished as required by the various ports of a kingdom to which the ships afterwards returned, and were given back to their owners. This system was found so inconvenient that kings gradually came to build ships of their own, and to keep them at public expense ready at all times for war. In England, Henry VIII. was the first monarch to adopt this plan, and his first ship, laying the foundation of the Royal navy, was the *Great Harry*, built in 1488. For a whole century after that, England was almost continually at war on the seas with the French and Spaniards. Towards the last of this time, however, Queen Elizabeth strengthened and organized her navy very greatly, so that she was ready for the first important event in English naval history—the repulse of the Spanish armada.

This armada was a fleet of 132 large ships and many small vessels, mounting altogether over 3000 pieces of cannon. It carried 8776 seamen, over 2000 slaves to row in the galleys, and nearly 22,000 soldiers. In comparison to this, England could oppose only a miserably small fleet of ninety vessels; but though so much smaller and weaker than the Spanish ships, the English vessels sailed better—poorly enough at best!—were more nimble, and could shoot squarely into the foreign

hulls, while the Spanish gun-decks were so high that most of their cannon-balls went harmlessly over the low-lying Englishmen. Thus for a week the two fleets were backing and filling in almost constant fight, which gave opportunities for wonderful feats of single-handed courage. Then the shattered armada, shorn of its pride, mourning a loss of forty large ships and 10,000 men, crept back to Spain. This surprising victory was followed by many expeditions against the Spanish coast and seizures of rich Spanish vessels.

At this time England demanded that every vessel sailing the seas should strike its flag in the presence of a British man-of-war, in token of submission. This was the cause of many small fights, and began, in 1604, the great war with the Dutch, which lasted for fifty years, and was followed by a long series of battles with almost all the Mediterranean ports, and afterwards with Spain and her American islands. This, again, was hardly over when war came on with the French, which lasted clear through Queen Anne's reign, and gives a flavor to so many novels written about that interesting time. These long constant wars, and the incessant danger from privateers, which were private war-vessels permitted to be equipped to range for prizes, but not owned by the government, taught all the European nations many lessons in sailing and sea-fighting, so that they were a very well-built lot of ships and fully trained crews on both sides that went into the famous battle of Gibraltar in July, 1704.

Though peace with France had been declared in 1748, war on the seas soon began again, and Spain also became an object of attack, until in 1762 Havana was captured by a British squadron, and a

peace forced upon France and Spain; and a little later came the American war of the Revolution; but the naval battles were few, and well-known to most American boys. In the midst of so many gallant exploits, and battles of the greatest consequence, it is hard to pick any in particular; but perhaps you will think most glorious the great battle of Trafalgar on the 21st of October, 1805. Lord Nelson had there his flagship *Victory* carrying one hundred guns, and thirty-one other ships, mounting all together no less than two thousand three hundred cannon. The enemy in this case was the combined fleet of France and Spain, and consisted of thirty-three vessels having two thousand six hundred and twenty guns, so that in size and number of vessels, and in amount of ordnance, the allies had the advantage. At daylight on the 20th the French fleet put to sea from the port of Cadiz; but it was not until the next morning that they approached the British squadrons off Cape Trafalgar. Then the wind was so light that it was high noon before Nelson hoisted on his ship the signals which sent that never-to-be-forgotten message, not only to the sailors on the other ships, but to British mariners everywhere for generations to come — “*England expects every man will do his duty!*” Then the *Royal Sovereign* led the way straight into and through the enemy’s line, firing her broadsides right and left as she passed between the *Santa Aña* and the *Fougueux*. Thus the terrible struggle began. Difficult to manage in the almost total calm which always follows a naval battle, and is supposed to be due to the shock of the air in the firing, the great ships drifted near to one and another adversary in turn, or became locked by some entanglement of rigging in struggles so close at hand that the flame of the guns burnt the woodwork of the opposite hull. Ponderous balls went crashing through the oaken walls, and showers of pain-dealing splinters flew to do harm where the balls themselves had killed no one. Masts were shot away and fell headlong in a maze of rigging, or yards and heavy tackle crashed down from aloft, while all the time the thundering of the guns and the booming of broadsides rent the air and deafened the scorched and blood-spattered gunners. Nelson himself was shot by a musket-ball from the rigging of a French vessel alongside, and was carried below mortally wounded; but he covered his face and his star with a handkerchief, in order that his men should not know that their commander had fallen. Receiving reports of the battle from time to time from Captain Hardy, he continued to give orders and mourn his inactivity; but at four o’clock he became speechless, and in a few moments more was dead. Of all the noble names of naval story none are grander than Nelson’s; and his last words ought to be as famous as the resolve with which he began this marvellous sea-fight: “I have done my duty — I thank God for it!”

Trafalgar was about the last of the great naval

battles in the old-fashioned full-rigged wooden ships of war. Of course there was no end of hard fighting in wooden line-of-battle ships and frigates after that in all parts of the world; but before many years steam was introduced into the construction and management of ships, and iron-plating began to be used. This produced as great a change in the methods of naval warfare as did the superseding of the old galleys by well-rigged sailing craft.

The guns of the old ships of war, though so numerous, were all of small size, the heaviest of them being only twenty-fours and thirty-twos; that is, shooting round balls twenty-four or thirty-two pounds in weight. The United States has lately cast some smooth-bored cannon for land-defences, hurling a solid round-shot weighing nearly two thousand pounds — the famous twenty-inch columbiads.

Soon after Nelson’s day, the wars in the Mediterranean and in American waters, where forts had to be bombarded and improved ships were met with, guns of much larger calibre (that is, breadth of bore) were made, and hurled their shot with so much greater force that the oaken walls were no longer a sufficient protection, and builders began to plate the hulls of their vessels with sheets of iron, whence came the name “ironclads.” Next artillerymen cut spiral grooves in the bore of their cannon, like those in the barrel of a rifle, and fitted to them an elongated conical projectile — the word *ball* won’t do for anything but a round shot, while *projectile* may mean anything thrown. The advantage gained by this rifling was, that a projectile (which goes straight point foremost to its mark) is called upon to punch a smaller hole than a ball of the same weight and velocity, and therefore its force can be exerted more powerfully. You can easily understand what I mean if you take a round chunk of iron and try to drive it into a board by a single blow of a hammer. You will succeed very poorly; but if you forge this piece into a nail, one strong blow will send it well into the plank. Pointed projectiles and rifled guns, then, have taken the place almost entirely in ironclad ships of war, of the old smooth-bores and round shot.

But with better knowledge of how to manufacture and how to manage large ordnance, went a constant growth in the size of guns, until now an ironclad’s armament is chiefly guns having bores ten or twelve inches in diameter and carrying a projectile weight three-quarters of a ton. Such cannon would knock one of the old *Victorys* or *Bellerophons* into kindling wood in a few minutes; while there are few forts in the world — certainly not one in America — that would not crumble under their fire between breakfast and luncheon.

But as fast as the guns got bigger, the armor of vessels became thicker and the number of guns they carried was reduced. Instead of the old three and four deckers, standing as high out of the water as a church, bristling with cannons’ mouths, and covered above by an enormous structure of spars and ropes

and canvas, we now see long shapeless vessels with scarcely more beauty or shape about them than a canal-boat, and with only a few sails. Instead of the hundred guns there are only half a dozen, and in place of the oaken bulwarks are walls of solid iron, while the monster is driven to its position by deeply hidden engines and submerged propellers instead of working grandly into its place in the line by skilful handling of top-sails. The old romantic, picturesque glory of a sea-fight is gone; a battle between two modern ironclads would be much like two volcanoes firing jets of lava at each other, for all one could see. But we can afford to lose the romance, for the dreadful carnage of the bloody decks is also a thing of the

turret. This plan has been abandoned, and the gun-carriage is now moved within the turret, and fired out of it as it would be out of the casement of a fort.

Of course the moving of these enormous gun-carriages, and the handling of the heavy amunition in loading, is all done by steam machinery.

On the turret — sometimes a ship has two or three — and the region amidships, where (as low in down the hull as possible) the massive engines are placed, the armor is the heaviest. It consists of great plates of iron or steel moulded to the precise form of the vessels, and bolted on to the frame. These plates are as thick as possible; but when more than twelve



THE BATTLE OF TRAFALGAR.

past; and unless some grand catastrophe occurs which sends the whole huge ship to the bottom before her crew can escape, the present loss of life is small.

The most of the iron ships of war building by England, Germany and Italy — which are the leading nations in naval matters now — are turret ships. The idea of a round tower of iron on deck from which cannon should be fired, came out in our war of the Rebellion, and produced the *Monitor*. Her turret, however, went round on wheels, and the great gun in it was carried along, so that instead of moving and aiming the canon, they wheeled and aimed the

inches in thickness is required, as is often the case, a second layer must be placed over the first.

Lastly, the prow of the ironclad below the water-line is extended out into a sharp knife or point of steel called a ram. Driven by the enormous weight of the ironclad in motion, nothing could stand a blow from this ram, and the vessel struck by it is sure to sink. Nothing, then, would be further from the thoughts of a modern captain than to allow his enemy to run into him, as used so often to be done in the old frigate fighting.

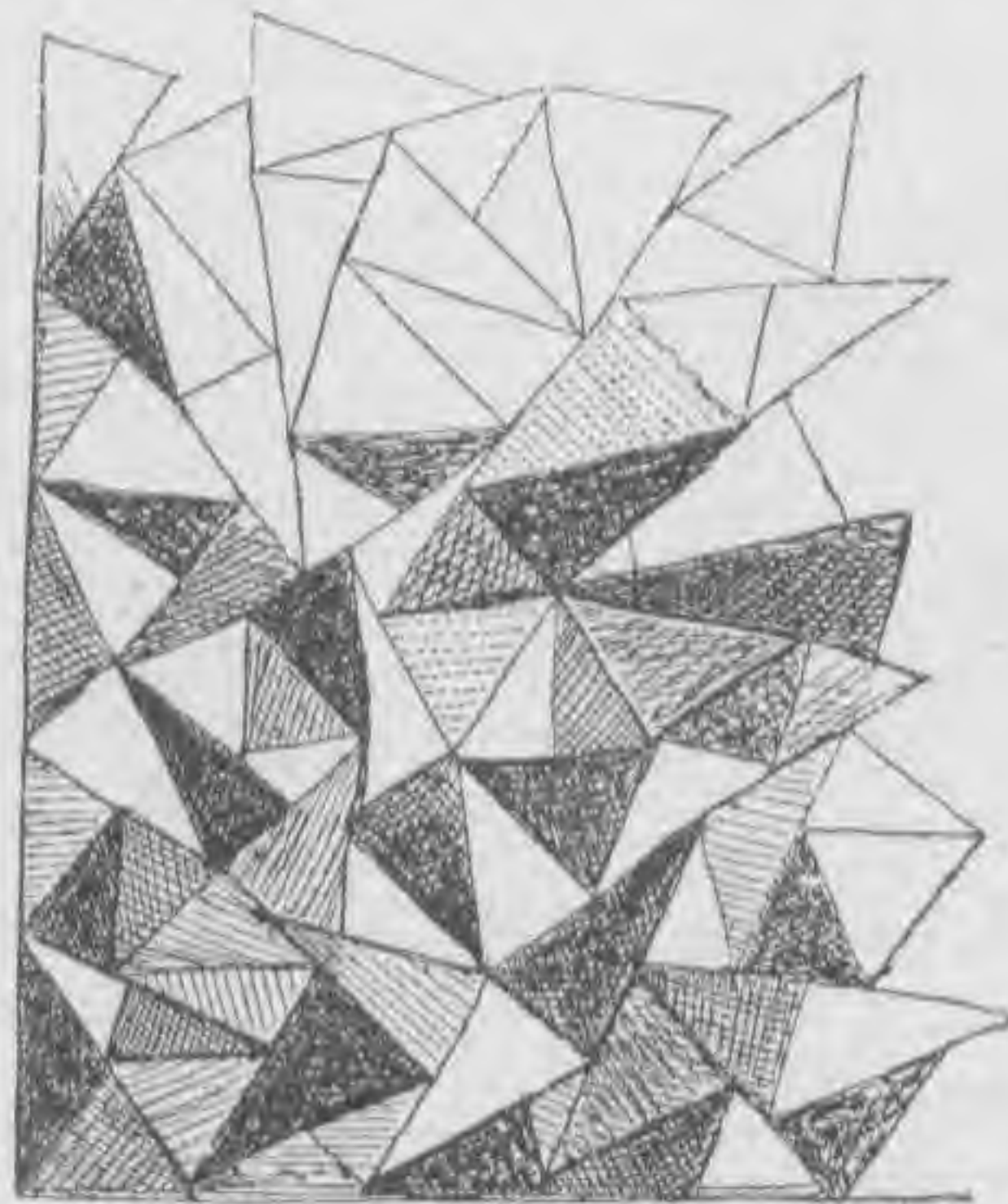
A first-class ironclad costs from \$2,000,000 to \$3,000,000.

WAYS TO DO THINGS.

VIII. FOR A GIRL'S ROOM.

BY SUSAN POWER.

IN fitting up a cosy room we must not forget the rugs to lay beside the bed for bare feet to step on, before the fire to catch the dust so that it can be shaken out every morning, before the dressing-table and the study-table, both to keep the feet warm and the carpet from wear. For odd, bright, pretty mats, for cushions, toilet-covers or curtains, table or bed spreads, and for making the utmost of every scrap of silk, velvet or wool, there is nothing like Japanese patchwork. You will see it in the diagram, no two pieces



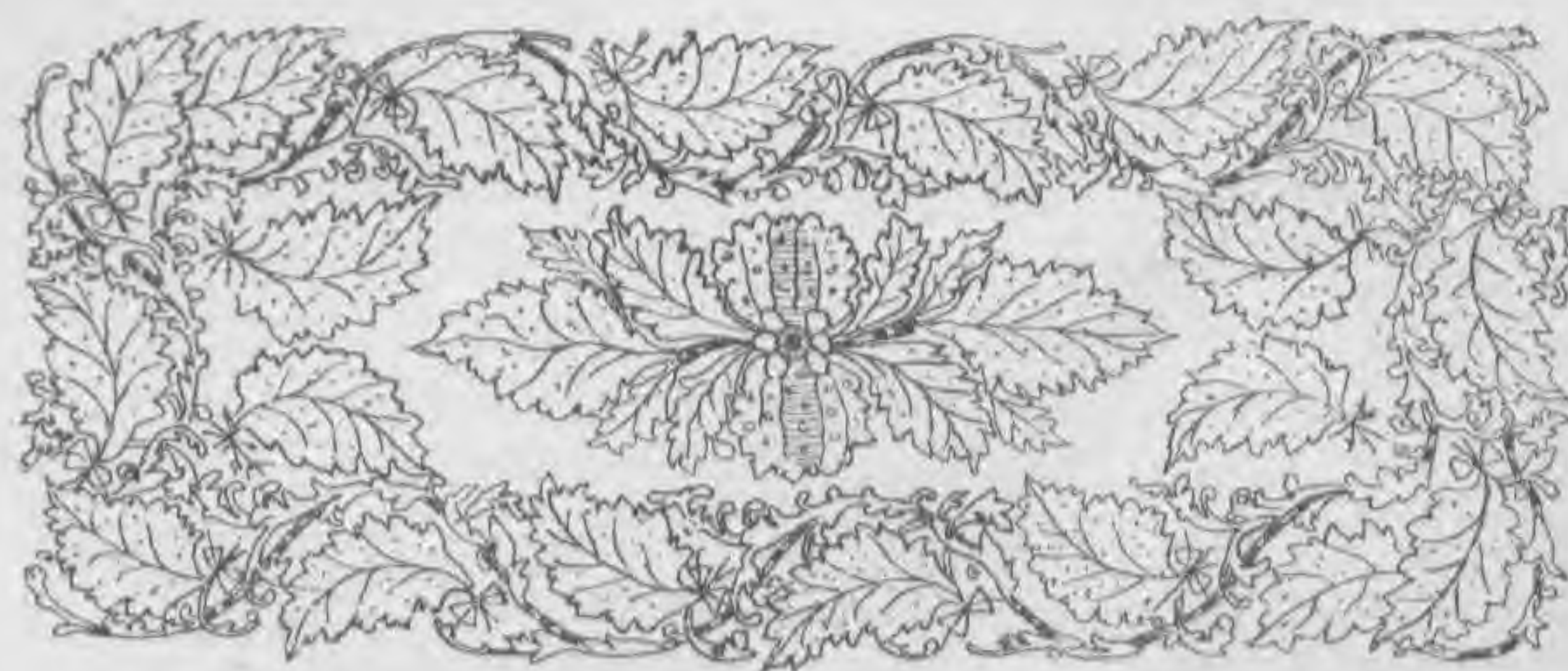
JAPANESE PATCHWORK FOR MATS.

alike, no pattern, no regularity, and yet the design is orderly, harmonious and pleasing; just what we want in true decorative work. It is an assortment of triangles of cloth, those three-cornered bits one never has any use for, which are basted on a lining so that the edges join and the bits fit evenly, paring them to suit, and sorting the colors well, after which the edges are worked on the right side with a wide black seam in satin stitch, with black washing-crewel or silk that will hold its color. Care must be taken to assort the shades properly; a black spot in the centre of each group, to give it strength, some gray pieces next it, then bright colors, red, purple, blue, scarlet, dark green, more and lighter grays, or white if you must use it, after them, and soft colors against these. The whole design grows round the black dashes in varying light and dark tones, so that in a well-composed piece, every bit has its own place as exactly as in a fine mosaic. You see the same sort of idea in the scrap-mats which the sewing-society makes for its fairs, of round bits of flannel the size of a half-dollar, pink or sky-blue on a larger round of gray, and the gray on a wider one of black, and these treble discs sewed thickly on a ground of cloth lined with bed-ticking. This makes a trim, pretty mat, with a pinked border of dark gray, deep red or black cloth. But these oval mats look best when made only in colors which suit each other, like soft cherry and wine-red, or salmon-pink and olive-green, with the grays and black. For using up every color and scrap you will

find nothing so profitable as the Japanese work. The idea of this work was taken from the mosaic pavement under the feet of a gayly dressed figure on a large hanging panel, and copied both in patchwork and embroidery. For the latter, the triangles are worked with crewel of one shade in Kensington stitch, and the black outlines wrought over and over as in the patchwork.

Still showier and more expensive are the mats of Turkish appliqué where large leaves and figures are cut out of bright felt or cloth, scarlet, green, olive, blue or purple, and laid on a dark ground, with various ornamental stitches, chains, dots and crosses. The pattern given, from a piece of continental work, will be found very brilliant and handsome. In the original, the large leaves on a ground of crimson satin are filled in close rows of chain-stitch, or tambour stitch, in three shades of green, and these in turn are worked with white silk dots like beads. Now you may imitate the effect by chain-stitch on dull red felt, which would make a hanging for a piano-back, or for the back of a sofa when wheeled out. Or you may cut leaves out of green cotton satine such as comes for the skirts of dresses; size your leaves with very weak white glue, dry, press, and shade with water-colors, after which you apply them to cloth, and work the veins, dots and edges as you like. For mats, the appliqué should be of upholstery felt laid on darker floor felt, with stout burlaps or an old grain-bag for lining. The veins of the leaves may be worked in crewel, and the dots in cross-stitch of white wool.

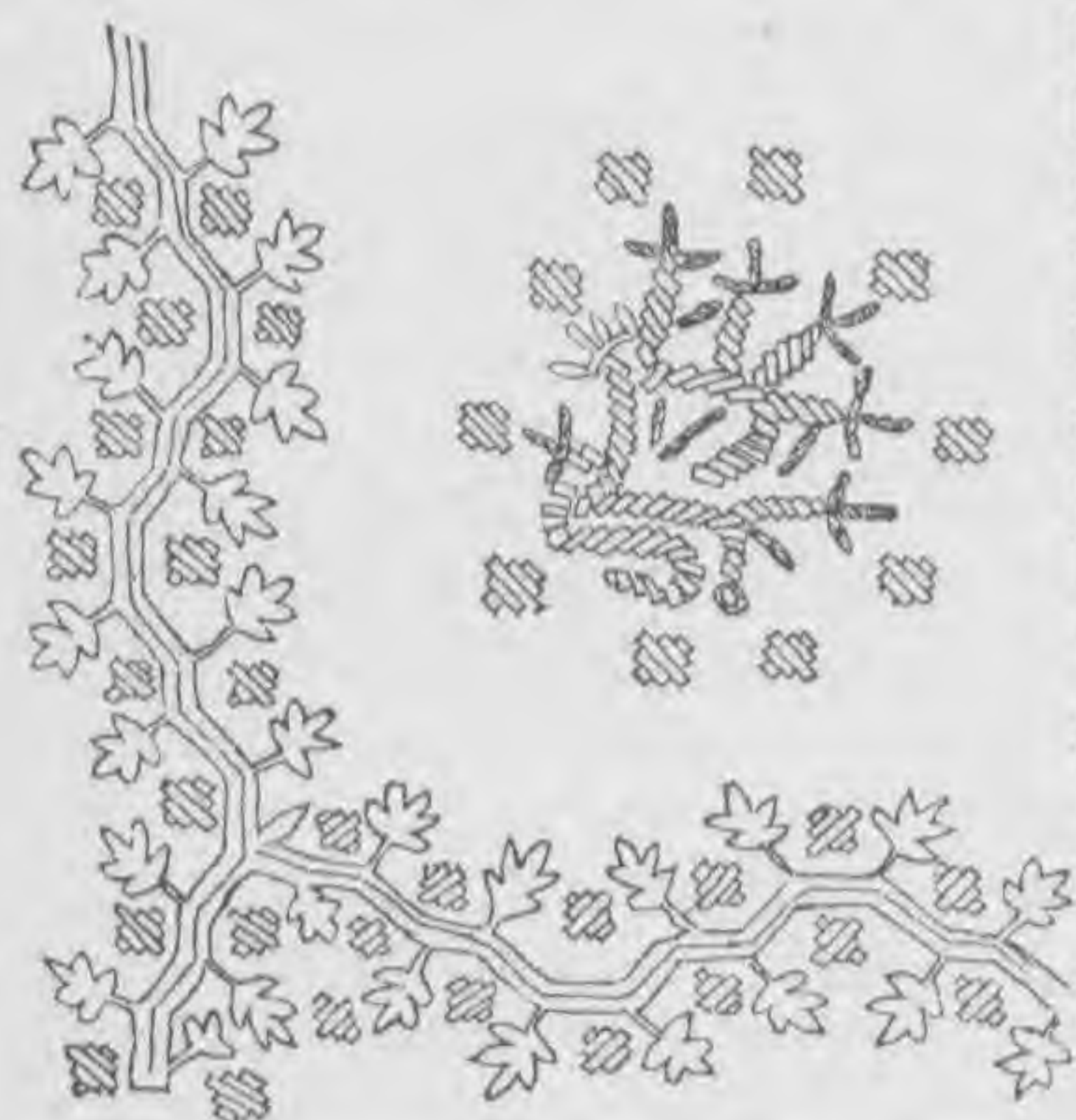
The most serviceable rug, however, is neither the patchwork nor yet the drawn rug over which many women are wasting their time, but the old-fashioned braided mat. As English ladies of leisure are making these rugs for pastime, you need not consider the work beneath you, but see how much you can improve on the old patterns. You know that such rugs are made of woollen strips cut half an inch wide, and the



TURKISH MAT IN APPLIQUE AND CHAIN-STITCH.

ends sewed together by lapping, as carpet rugs are made. Only, the rug is braided as the strips are

sewed, instead of rolling them first into large balls as for carpet. When braided, the thick strand is coiled round a small centre-piece of common carpet,



MAIDENHAIR FERN DESIGN FOR TOWEL.

sewed together inch by inch, with all knots and ends on the under side, and pressed with heavy irons. It is quite an undertaking, but these rugs last so long that they are worth making in good style. Try braiding one with a deep red centre, then three black rows, one of lighter red, two of black, two of deep red, two black, one sky blue, and a black border. You will have something gay and striking in color, but in thorough good taste. A large mat in dull reds with black and green can be made to look well on a dark polished floor without any other carpet.

Every necessary of the room now is made a convenience on which to hang some pretty decoration. You want a match-safe, and a pearly mussel or horned sea-shell is the best one you can ask. For the burnt-match holder, cover a small tin spice-can with silver canvas, having a little design worked on it, and hang it by a ribbon under the sandpaper panel for striking matches. You want a scrap-basket of gorgeous sort, and cannot get one of the Indian baskets of dyed splints, red, brown, crimson and green, which are so pretty for scraps or for mending. A half-bushel peach-basket of splints, with flaring top, is just of convenient shape. Wash it with hot suds and a scrubbing-brush, dry thoroughly, and paint a very bright blue, varnishing afterward. Line with turkey-red twill, crochet large scallops of red, gold and olive wool to hang over the rim, with large combed-wool tassels between. Or drape a scalloped fall of dull-red felt from the rim, catching it each side with large drooping bows and ends, which may be of hemmed twill or satine if you are short of ribbons. If it were mine, I should make the lining of bright crimson glazed cambric, the fall of heavy red satine, worked with a scallop in wide button-hole stitch, and a border of blue and gold crewels in the long stitches people call point Russe, which isn't its name at all. Let me repeat, that it is best to use cotton and linen whenever you can for the furnishings of common rooms, as they will not hold dust or odors like felt and cloths.

Of course you like Japanese things, and the other Oriental decorations people use so much, because they are gay and natural and inexpensive. I don't know what we should do without them, for nothing brings so much cheerfulness and positive good-humor

into a room as these Eastern trifles. They show best when turned to actual use. The paper scrolls, which have glowing roses, amaryllis and yellow Japan quince on grounds of cream-color, crimson, gold-leaf or silver, are beautiful hung in corners or narrow spaces to light the shadows. The wider panels are hung in the side-lights of bay windows instead of other blinds. A little light rattan scroll hung one side of the mantel-glass is a convenient rack for cards and photographs, which are stuck by the corners between the slats. You want a squat vase to hold knots of short spring flowers, and you will find nothing better than the little Japanese teapots, two inches across, which come in red or gray pottery, and blue and white porcelain, at fifteen cents, and are just the right size to hold a tuft of violets or hepaticas. They are small enough to make quaint inkstands or perfume-holders, filled with rose-leaves which in time give their scent to the clay. As I write, one, two, three, four, five of these dwarf teapots grin at me from the mantel like funny little sauce-pans with lids, and rings in the end of the handles, complete as "grown-up" ware. The crêpe paper pictures you know, and how they were made into "tidies" with velvet and lace, for which they were wholly unsuitable. A better use is for lamp-shades, for hall lanterns, or filling the lower panes of a sash for window-screens. For lamp or sash they are very pretty, the light coming through the thin paper giving the panes the effect of stained glass. The square pictures are lightly gummed by the edges to the glass in the window, or inside the slides of the square hall-burners, and the effect is that of costly painted glass. I don't know where any one can find more brilliance for five cents than in one of these crêpe squares. It will make a pretty lampshade in form of a banner screen, by pasting small rattans across the top and lower edge to keep them from curling, and suspending the picture by a fine silk cord and tassel from a bent wire. Perhaps next time the artist will show us this little swing shade, with its slender gilt wire set in a carved spool for a foot.



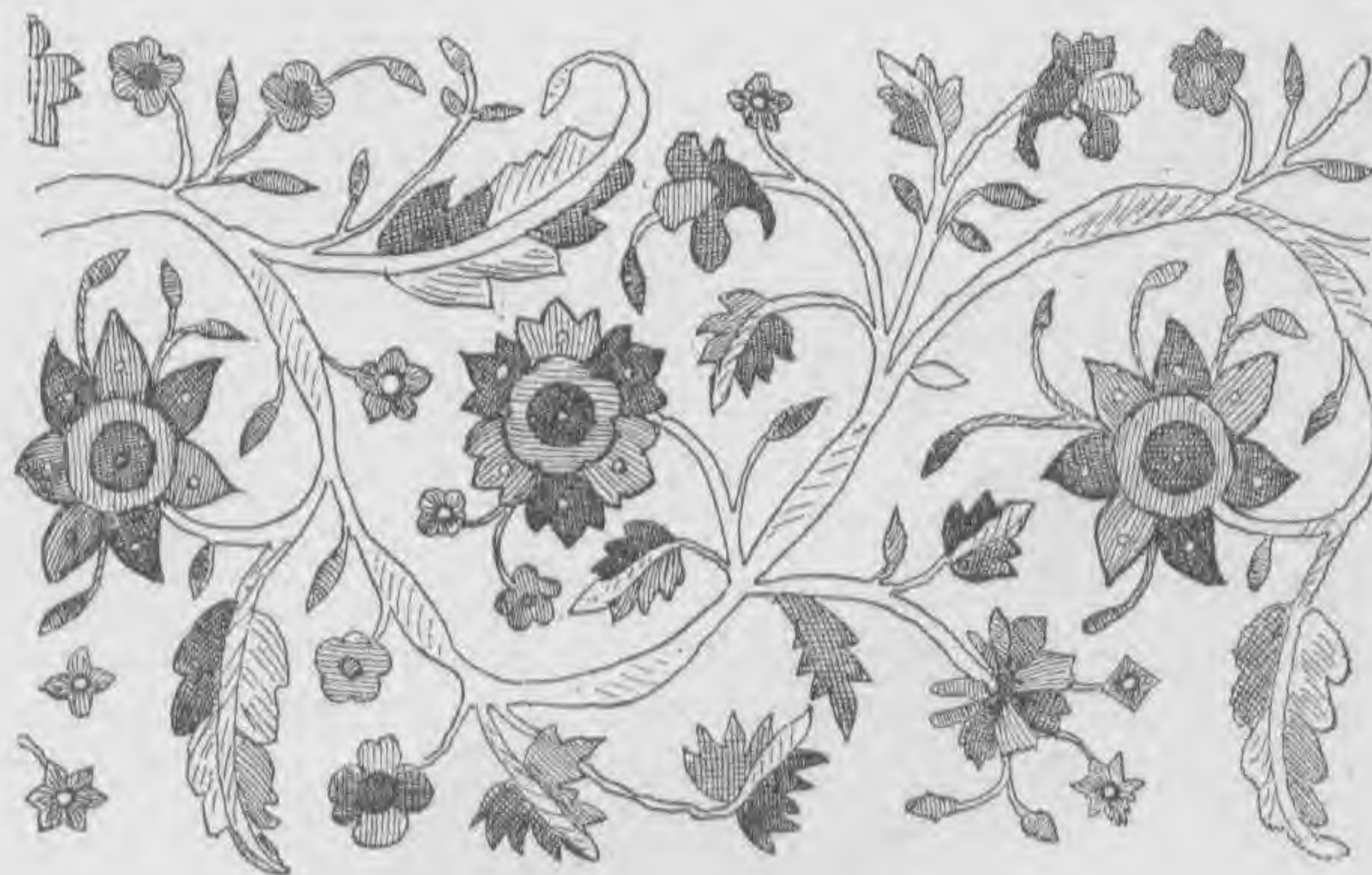
TURKISH DESIGN FOR TOWEL.

Such a holder is convenient for anything you wish to be reminded of — the calendar for the week, the text

for the day, a list of Latin declensions, or memorandum of things to be done.

There can hardly be too much needlework in a girl's room; for nothing speaks so much of taste, patience, improvement—all the qualities one needs in life. With hardly an exception in history, every famous woman from Egypt down to England has been clever with her needle. It is something which belongs to women, as a knowledge of business, horses and politics does to men; and whatever else they are good for, we always miss the acquaintance of these things. A boy who can't harness and drive a horse, and a girl who can't sew and embroider, seem alike wanting and incapable. If you are not ready with your needle, lose no time in making your loss good. No matter if you live in lonesome prairie houses or quiet country places East, where shops are few and fancy-work little known. You have two materials with which you can do much—patience and your own skill, which you never will know till you try it. With a crochet-hook and shoe-thread you can weave lace heavy and handsome as that which hangs at rich windows, or with a needle and colored silks or cottons you can work scarfs and coverings for your room like the Oriental embroideries which the artist shows you, in soft flowing colors. There is a growing fashion of relieving the hard outlines of doors, walls and furniture with folds of drapery and with living plants. The piano does not stand against the side of the room when you turn your back to everybody, when you play and sing against the wall, but away from it, where you can sing out into the room, and a large handsome drapery is thrown across the back. The sofa is wheeled out to the fire, and needs embroidery to veil its back and ends, which often are not finished for sight. A plain square picture-frame has a Turkish scarf with border in colors and tinsel thrown over one corner and across the top gracefully. Ladies tire of having overlays done up frequently, and use the brilliant Bulgarian embroidered veils to lay over sheets and pillows instead of white starched ruffles and flutings. You have drawing materials or wax-work tools you wish to leave undisturbed, and an embroidered veil is useful to throw over things to keep them from dust. Now if these patient Servian and Turkish women, who can't read and who know so much less than you about a hundred things, can make such lovely works of art out of their bath-towels and homespun cottons, which we are eager to buy to adorn our homes, an American girl with the spirit and intelligence we hear so much of, should have some work to show as perfect, as painstaking and lasting. These veils and scarfs from which the patterns are drawn are of soft, sleazy cotton, like the unbleached muslin we buy for five cents, which is nearly as thin as cheese-cloth. On this simple material the Bulga-

rian girl has lavished cut work and drawn work, in soft, harmonious tints, faded slightly by time, but not by washings. One pattern imitates a maidenhair fern, in crimson and green floss, with bright, flat threads of gold as brilliant as when first put in. Another is a scroll of delicate green, red, and fine gold thread, with the edge each side finished by a small button-hole stitch in pinkish red, loosely worked but perfectly even, and appearing like a firm selvedge. Would you have patience to work the edges of a towel like this, when a whipped hem would have done instead? On this scarf bordered with blue scrolls, outlined by black, with centre-work of gold and of silver thread, the careful worker has wrought the edges each side in little blocks with dainty, regular stitches, which on the sleazy cotton must have tried her skill to execute. We like these things, not so much for their soft, charming color and rich interweaving of gold threads, as for their



ORIENTAL DESIGN FOR TOWEL.

patient painstaking. You would like to do work as fine if you only knew how? Very well; then begin with coarse material, crash or linen duck, and red knitting-cotton, which will not try your eyesight, till your hand knows well what it is about. You can work broad leaves or square patterns in red on white duck or crash, for serviceable toilet mats, filling the figure in cross-stitch, or in the close chain-stitch, many rows together, which is the principal stitch of the Janina work now fashionable, and one of the oldest embroideries known. Whatever you wish to learn with ease and thoroughly, begin with the coarsest thread you can manage, whether it is for crotchet, tatting, lace or embroidery. I remember when a girl, trying to learn tatting with fine spool-cotton, and losing my labor with knots and tangles till a clever cousin came to the rescue, and set me learning with coarse cotton cord, then with stout thread, till pearl and picot came true at each scallop; and this is really the way all good teachers begin.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

VII.

IN NEW YORK AND AROUND IT.

"As an abstract theory, the doctrine of free trade seems to be universally true; but as a question of practicability, under a government like ours, the protective system seems to be indispensable. . . . I am for a protection that leads to ultimate free trade." — GARFIELD: *Chips from the White-House*, pp. 392, 407.

ALTHOUGH New York city is the largest city in the State, it is not the capitol. Boston is the largest city in Massachusetts, and is also the capitol; but not because it is so large. A city is sometimes called "metropolis," or "emporium," to signify that it is large and important; but it is not called the capitol of the State unless it has been selected as the place for building the State House and doing the business of the State government. Remember that a capitol city need not be a large one.

There are many interesting things in New York. There is a very large park, containing a pond for boating or skating, a music stand with a band to play in summer afternoons, a curious cave and ramble, several cosey summer-houses and refreshment-saloons, many wonderful birds and beasts, and some trained ponies and carriages drawn by goats for children. There are broad and handsome streets, some lined with elegant dwellings, others with shops exhibiting curious and beautiful things for sale. There are large and costly churches, libraries, school-houses, banks, hotels, museums and theatres, also what are called elevated railroads, which are built upon posts so that the cars run upon a level with the second or third stories of houses, while other cars and ordinary carts and carriages run underneath them. The chief street for business is Broadway, the sidewalks of which are thronged with people walking, while the street itself is so crowded with vehicles that sometimes they cannot move, but have to wait until the policemen can untangle the "jam." If we should go to the crowded end of Broadway and watch a lady out a-shopping who wished to cross the street, we should see her standing at the corner looking very anxiously among the stages and carts. Soon a policeman would approach and say, "Do you wish to cross, madam?" She would say, "Yes." Then he would "arrest" her by one arm, very politely, and walk with her right in among the carriages. At first she would be a little "scared;" but he would shake his club on this side or that at the horses or their drivers, and they would stop or turn aside, and thus in a minute the lady would be safely across. Then

she would turn half way around and say with a smile, "Thank you, sir." By this you would see that what the teacher told you in December is true — a chief duty of policemen is to help people out of difficulty. And no honest, well-behaved person need be afraid of them. Whenever you are in trouble in a city street, it is well to ask aid from a policeman.

New York has grown thus large and wealthy by reason of her spacious harbor and fine accommodations for ships which bring goods from foreign lands to America. All little citizens know that the things people eat and drink or wear or use for furnishing their houses come from different parts of the world. One region has the best soil and climate for producing wheat, another for beef, another for cotton, another for tea or coffee, another for coal, iron or gold. Also, the various nations have different taste and skill about making things; thus some can manufacture silks or shawls better than anything else; others prefer to make woollen or cotton cloth, or crockery, or iron ware. Of course the dwellers in each region like to exchange what they can raise or manufacture, and therefore have in great plenty, for what they cannot produce. This exchanging of goods between different parts of the world is called "commerce," and the persons who attend particularly to it are "merchants." Foreign commerce needs good harbors; and New York supplies one. The city occupies a long, narrow island, on each side of which is a broad space of still and sheltered water called New York bay, which, toward the south, opens to the Atlantic Ocean through a strait called the Narrows; this is of just the proper width to admit ships from Europe, while it keeps out the ocean storms. The shore of the island on each side is well adapted for wharves and piers at which these vessels can exchange cargoes. West of the island is a large river called Hudson or North river, up which vessels can sail fully a hundred miles carrying goods to the northern part of the country. If we were to sail up this river all night in a steamboat we should land in the morning at the capitol city — Albany. At Albany commences a canal along which goods can be carried to the West. For carrying goods from New York to the East there is a curious strip of water called East river; and vessels for southern ports can sail down through the Narrows and along the Atlantic coast. Besides these waterways there are great railroads branching from New York to all parts of the country. If you will ask some grown person to explain this on a map you will

see very clearly that New York is an excellent port for foreign commerce.

Foreign commerce is one of the things placed under the charge of the United States government. Each State governs any commerce there may be within our own limits, but commerce among the States is subject only to the government at Washington. All persons who "import" goods, that is, bring them into this country for sale, are required to pay some money for the privilege of doing so. This money is called the "duty," and is collected at the custom-house in the port where the vessel arrives; in New York the custom-house is an immense building, and several hundred officers, clerks, brokers and messengers are kept busy in ascertaining and collecting the duties on the various cargoes which arrive in the harbor from foreign lands. The government at Washington has published a list of goods likely to be imported, specifying what duty must be paid upon each; this is called the tariff. Suppose a merchant imports a cargo of tea from China. When the ship arrives, an officer from the custom-house visits her, counts and weighs the boxes, and ascertains the quality and value of the tea; he then consults the tariff to see what duty is charged upon such tea, and computes what sum must be paid for allowing the cargo to enter. He notifies the merchant. The latter pays the duty at the custom-house, and the money is sent to Washington, where it is used to support the government. And the custom-house officers allow the tea to be brought ashore and unpacked for sale. If a merchant should refuse to pay the duty, he would not be allowed to bring his goods ashore. Sometimes persons contrive to bring goods secretly, without paying duty; this is called "smuggling," and is a serious offence. Passengers coming from Europe sometimes endeavor to smuggle goods; it is to prevent this that custom-house officers search their baggage. Some of the tricks of smugglers are very ingenious. A lady once landed from a steamer leading a shaggy yellow dog; but the dog was so fat and waddled so clumsily that the custom-house officers suspected smuggling. They caught the dog and cut into his skin. Under the skin they found a great many yards of costly lace wound around the body of a lean, lank black-and-tan terrier. The out-

side skin was the skin of some other dog which had been sewed over the lace in hope of smuggling the lace.

Every importing merchant must of course add the amount of the duty paid upon his goods to the price he asks for them. If a piece of cloth a hundred yards long costs in France \$50, and the expense of the voyage is \$10 per piece, and a fair profit for the merchant is \$15, then, in case there is no duty, the merchant can sell the cloth at seventy-five cents per yard; but if the duty is twenty-five cents he must raise his price to \$1. This will hinder the people from buying it, and make them more willing to buy cloth made in America instead. It has always been a perplexing question whether it is better that government should charge high duties on foreign goods, and thus "protect" manufacturers in this country against the competition of those foreign lands, or allow the people to buy whatever is cheapest where they please. Laying high duties to prevent foreign competition is called "protection," and is better for manufacturers and producers. Laying no duties (or very low ones) is called "free trade," and is better for merchants and ship-owners. If a father of five children should give them a dollar apiece to expend in Christmas presents, and should say, "I advise you to visit all the shops, and consider carefully where you can buy presents cheapest," this would be like entire free trade. But if, instead, he should say, "I do not wish you to spend this money in the shops, but among each other; let each child make the best gifts he or she can — boats, sleds, boxes, book-marks, pin-cushions, slippers — and each buy from the others," this would be like complete protection. By the free-trade plan the children would undoubtedly get the handsomest gifts for the money. By the protection plan, they would keep the money among them, and would also gain excellent practice in making fancy articles. Which is the best plan? Perhaps you will agree with General Garfield's opinion, which is our motto. In this country we never have either free trade or protection entire or complete. At present we have partial or moderate protection; people can import foreign goods, notwithstanding they are such as could be procured here, if they are willing to pay a duty on them.

WHAT TO DO ABOUT IT.

CARRIE S. asks: "What language did Adam and Eve speak?" If you mean to catch this old bird with a conundrum which I remember to have heard before, I must refer you to the Puzzle Editor; but if the question is serious, you must send for the Wise Men of Egypt, for none of those who

exist nowadays know. The rabbis say that Adam was made mute like a baby, and the good angel Raziel taught him to speak. Many wise men say that the human race conversed only by signs at first, and their speech was formed by imitating the cries of animals. The earliest language of which there

is any trace, earlier than the Hebrew, was the Accadian, of which the Babylonish was a dialect.

K. S. "Can you not give us some directions how to pack a trunk? A good many of us will have it to do for ourselves this summer, and I fear few know how to do it scientifically." Line the trunk first with strong manilla paper, dark blue, or buff envelope paper; white injures delicate colored things by the lime used in bleaching. Fold it neatly at the corners, as in covering a book, clip and paste it slightly to keep in place. Put books in the bottom, then boxes, underclothing, sheets and towels which are always convenient in boarding, the dresses either in trays or above other things. Have all shoes and rubbers very clean, wrap in thin paper separately, then tie pairs together in firm paper very closely. Put nice dresses and shawls in a fine towel, or keep in paste-board dress boxes. Tack three or four broad tapes to the sides of your trunk or tray, and tie across the contents to keep them from tossing. Fold everything very smoothly, and pack singly, without crowding, filling the crevices with stockings, towels, or work which may be rolled tightly. Have all laces, ribbons and ornaments in separate boxes, tied with tape which does not cut the boxes. Fill the crowns of bonnets and hats with tissue paper or light articles which keep them from crushing, wrap the outside in a soft veil or plenty of thin paper and pack closely round to prevent shaking. Have all toilet articles together, all fancy work, all writing materials, and the dress you will first need, so packed as to come first at hand. Nice lace keeps best in a soft, quilted wrapper, lined with thin silk or satin, which allows it to go without folding. Take plenty of small wares, thread, pins, invisible hair nets to keep the front hair from losing its crimp. Take a shot-bag, a toilet-bag of crash to hang over the wash-stand, a large colored bag for soiled clothes, a scrap-bag and hair-receiver which will greatly aid in keeping a small room tidy, also a tin medicine box with bottles rolled separately in cotton wadding, and then tied in paper, a layer of cotton under and another over them. Bottles can be carried in this way any distance. Take vaseline, carbolic acid to keep away mosquitoes, gum camphor, Jamaica ginger, a few seidlitz powders, and quinine pills, plenty of ammonia, lavender water, and chloroform for toothaches and for taking spots out of silk. You can get such things of course, but the trouble of getting them, and of being without them just when wanted, will soon teach one that it is best to be prepared with them. Better carry a medicine box six years unopened, than to be caught with a raging toothache, a bee-sting, an ink spot, or find yourself in the same house with typhoid fever, without remedies. Carry ground mustard for poultices, a paper of baking soda, which is sovereign for burns, scalds and stings, to avoid calling up a whole house to get either of these trifling things. A spirit-lamp, and a hollow, nickel-plated iron for pressing muslins and laces, heated by the lamp, are great conveniences.

JERRY AND JIP. "Our uncle has sent us some Japanese curiosities, and among them are two large glass balls. What are they for—use or ornament?" You will find similar large clear balls in every Japanese collection, but they are not glass, and are not meant for paper-weights, which everybody takes them for. They are polished rock-crystal, and the Japanese hold them for cooling the hands. Roman ladies in ancient times, and fine ladies in the times of our great-grandmothers, wore crystal and amber necklaces because they were cool to the neck in summer; and I have heard of their carrying perforated silver balls filled with spices for the sake of the fragrance and for cooling the palms of their hands when at fancy work, lest the slight moisture of the skin should leave a trace on the velvet and spangles of their embroidery.

FLORA P. asks: (1) "When and where did Benedict Arnold die?" He lived in England after his treason, rich, for the British government paid him a large sum for his treachery, but shunned by men of honor everywhere, and died in London, June 14, 1801.

(2) "When was the compass invented, and by whom?" Its origin is unknown. Its invention is attributed to Flavio Gioja Amalfi, early in the fourteenth century. Other historians say it was brought by the famous traveller, Marco Polo, to Venice from the Chinese in 1295; but it is known that the compass was used in France as early as 1150. There are some things in the world you can't bring down to dates and figures, and this is one of them.

A LILLIE. "Please tell me how I can keep my hands nice and white doing housework." *Only* by wearing thick kid or castor gloves about sweeping and chamber work, by using a dish-mop to wash dishes, and a wire "burnisher" with handle to clean kettles. Wiping all tin and stove ware with a coarse dry towel instead of wringing a dish-cloth a dozen times out of the water. After using potash, soda or strong soap wash the hands in vinegar and water, a tablespoonful of acid to a pint of water. Never wash your hands in cold water, use pumice stone disks which comes for the purpose, to remove roughness, and be careful to have nice soap for the hands, and a brush. You need nothing expensive; white Marseilles soap at fifteen cents a pound, or Queen Bath soap or the Cold Water soaps are good for common hand or bath soaps, and keep the skin soft. Use vaseline, olive oil or nice mutton suet to heal cracked hands.

A BIG GIRL. Your question can hardly be answered in these limits, but your suggestion is too valuable not to receive consideration, as you will see hereafter.

ADA J. Not the Three Wise Men of the East could tell you how to take scratches off a slate, unless you sent it to be ground smooth. Try scouring it with fine powder of old, soft slate, sifted through muslin and used very wet.

FLORA wishes for a list of American society novels. My dear child, don't you know that such a thing is hardly known here, above a sensational grade of books which I decline to mention, and advise you not to waste your time over? You will find in such stories as "Malbone," by T. W. Higginson, "A Chance Acquaintance," by W. D. Howells, and his serial now running through the *Century*, Miss Constance Woolson's beautiful story of "Anne," just published, and in Mr. Henry James' novels, pictures of what is best and most interesting in American society.

MARY P. S. (1) "What is the exact meaning of the word æsthetic?" This much-used word signifies devoted to the beautiful. An æsthetic person is one who thinks a great deal about the beauty of things; perhaps more of their beauty than their fitness or worth. Æsthetic surroundings, æsthetic furniture,

are those carefully chosen with regard to their taste and decorative effect. Æsthetes, or æsthetic people, of whom you hear so much satire, profess to care more about beauty than for anything else, and study and worship it above all things. It is the affectation and exaggeration of the love of beauty we despise, not the true æsthetics, the delight in whatever is lovely and best. (2) "Whose faces are represented on the United States postage-stamps?" The list issued March 5, 1882, is: 1-cent stamp, Benjamin Franklin; 2-cent, Andrew Jackson; 3-cent, Washington; 5-cent, Zachary Taylor; 6-cent, Lincoln; 10-cent, Jefferson; 15-cent, Webster; 30-cent, Alexander Hamilton; 90-cent, Commodore Perry. The 12 and 24 cent stamps are retired from use. Stamp collectors please take notice.

THE WISE BLACKBIRD.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

VII.

MENDELSSOHN.



MENDELSSOHN.

THERE was one thing in music that Mendelssohn could never do," remarked one old German musician to another.

"What was that?"

"Play a congregation out of a church."

Crowds thronged the churches when Mendelssohn was announced to play; they filled the aisles and the postlude, the usual signal for departure, held them like statues. When they finally left, it was to discuss the sermon of the organ instead of the pulpit. Once the vergers of St.

Paul's Cathedral were impatient to clear the church that they might get their suppers, after a service when Mendelssohn presided at the organ. The great

master continued to play after the postlude, and the people remained as though held by a spell. "There is only one way," said one of the vergers.

"What?"

"To stop the bellows."

He did so, and soon all was vacancy and silence.

Felix Mendelssohn Bartholdy was the son of a Hamburg banker, and was born in 1809. He came of a distinguished musical family, and royally inherited their genius. At the age of eight years he could play at sight the most intricate scores of Bach, and his old teacher, Zelser, was accustomed to speak of him as "the glorious boy." When Mendelssohn was about twelve years of age, Zelser wrote to Goethe:

"I desire to show you the face of my favorite pupil before I die."

At the age of fifteen Felix began to publish music, and he soon after composed an opera.

When a young man, Mendelssohn visited England, and his reception was so cordial, his genius seemed so admirably adapted to the tastes of the people, and his successes were so brilliant and uninterrupted, that he thereafter gave his affections and a great portion of his artist life to the English people.

He wrote the oratorio *St. Paul*, which placed him in the front rank of great composers. Later he was invited to compose an oratorio for a national festival to be given in Birmingham, England. He chose for his subject, "*Elijah*," and gave his soul to the composition with a self-consuming zeal.

That was a grand occasion when the oratorio was first produced.

It was the summer of 1846. Busy Birmingham lay circled with gardens of flowers; people of rank, genius, wit, flocked thither to listen to the masterpiece of the king of composers. The assembly represented the best ability of the world.

All was expectation when Mendelssohn appeared. The oratorio opened. There were four solemn trumpet-blasts, and Elijah, the man of the desert, who denounced the pagan altars that flamed on every hill, appeared and cursed the land with famine and death. The music grew tumultuous, representing the distress of the people. The apostles cry aloud, "*Help, Lord!*" and choruses, heavy with affliction, follow. Hope dawns with the magical tenor solo, "*If with all*

The second part was as wonderful, but not as overpowering. The soprano trio, "*Left thine eyes,*" the heavenly chorus, "*He watching over Israel,*" the contralto song, "*Oh, rest in the Lord,*" the earthquake in Mount Horeb, and the departure of Elijah through the rending sky in the chariot of fire, the comforting choruses bringing the work to a close like the parting clouds of a tempestuous day, all added surprise to surprise and admiration to admiration; and at the end of the work, as the composer moved away, he seemed more like a divinity than a man, and words of praise greeted his ear on every hand like the sound of the shining waves of the sea. His genius had made a mighty effort, and his triumph was complete.

The composition of *Elijah* consumed not only



"HIS RECEPTION WAS SO CORDIAL."

your hearts ye truly seek me," and choral quartets relieve the distress of the prophet with the ethereal promise, "*He shall give his angels charge over thee.*"

Again the trumpets sound, and Elijah appears in presence of the king, and announces the end of the famine. He calls the heathen priests to Mount Carmel, and tells them that there the true God will manifest himself in fire. The scene on Mount Carmel, where the frantic pagans call upon Baal, leads to one of the most weird and awe-inspiring choruses ever produced in music; and when the first part of the oratorio ended, the great audience knew that Mendelssohn had produced an immortal work, had created, as it were, a new orb of music which was to shine for all time.

the genius but the life of Mendelssohn. After his overwhelming triumph at Birmingham, and while yet receiving the congratulations of princes and the praise of the whole musical world, he became conscious that his nervous system was shattered and that his days of usefulness were drawing to their close.

"Play, play!" said a young friend to him, just after the performance of *Elijah* at Birmingham.

The young composer shed tears: "I cannot play; I have no strength," he said. He placed his thin hand upon his forehead, and exclaimed, "Oh, my head! my head!" looking upward to heaven, towards which his luminous spirit was hastening. He died at Leipzig in 1847, the year after the production of *Elijah*, at the early age of thirty-eight years.

THE WIDE AWAKE POST-OFFICE.

Those who wish their letters published in the WIDE AWAKE Post-office should direct their letters thus: EDITORS OF WIDE AWAKE, 32 Franklin St., Boston, Mass.

Those who wish to ask questions of somebody much wiser than persons of their own years, should address their letters thus: THE WISE BLACKBIRD, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

Those who are pursuing the Reading Course of the C. Y. F. R. U., and would like to ask questions about any article in that course, may address their letters to the author of that article, care of D. Lothrop & Co., 32 Franklin St., Boston, Mass.

All who wish to join the Chautauqua Young Folks' Reading Union can do so by sending their names with three three-cent stamps to the President of the Union, Rev. Dr. J. H. Vincent, Plainfield, N. J.

The Postmistress thinks that the readers of WIDE AWAKE will enjoy Miss Wilkins' beautiful poem of "The Baby's Footprint," in this number, all the more for being told that it is a record of fact, and that a minister in Randolph, Mass., has among his treasures the bit of rock on which was scratched the dainty outline of his mother's bare baby foot.

Nowhere, outside of WIDE AWAKE, has there been music so worthy, wedded to words so noble, as in this issue of the magazine, where Prof. Paine of Harvard College has set the famous verses which Canon Kingsley, in writing for one little maid, wrote for all the English-speaking girls of the whole world.

Some bright-eyed readers of WIDE AWAKE in Rhode Island who have long been taught that their good State is one of the smallest of political units, have wondered how Mr. Gilman can say that Greece was "not nearly so large" as the State in which they live. The explanation is this: There was, at the time of the battle of Marathon, no country which corresponded with Greece as we know it, a single people, under one government, and it was the Athenians and the region called "Attica," of which it was the capital, against which the Persians directed their forces. Attica contained but about seven hundred square miles. Rhode Island, according to her own census (1875), contains one thousand and fifty-five square miles, and these were the figures that Mr. Gilman set down in his notes when he was writing about Marathon. In trying to be brief, he did not explain that by the term "Greece" he meant to refer only to that portion of the country now called by the name that was attacked by the Persians. It will be seen that it was the "Athenians" and not the "Greeks" that Darius wished to be avenged upon. We are glad to learn that our readers are reading the Magna Charta stories with so much care.

CLAYTON, N. J., March 20, 1882.

DEAR WIDE AWAKE:

I am a member of the C. Y. F. R. U., and I notice that the "Wise Blackbird" asks for an account of the Yellow Day. I had been spending the summer in Skowhegan, Me., and on my way home, was staying a few days at my uncle's at Danville, N. H. We arrived there September 5, and the next day was the Yellow Day. As soon as we were up in the morning, we noticed that the sky appeared yellow. It was very hot, there was not a breath of air stirring. My aunt Julia had a very handsome flower garden, and the flowers looked so different that day; the green was a very handsome bright green, the red flowers looked so bright that they had an orange tint. I can usually swing in a hammock very high; but that day I just sat down in one, and it made me dizzy. My cousin Kittie washed some clothes, and mamma told her she had yellowed them instead of blueing them. About noon the sky looked orange. In the afternoon we all went to bed; it hurt our eyes to read, and made us dizzy. Toward night the wind breezed up, and the yellow went away, and it looked and smelt smoky. I was glad when it went away, for I was very much frightened.

MAMIE P. CHASE.

Concerning "The Carib Captain's Story" in this number, the author thus answers the editor's inquiry made on behalf of the girls and boys:

DEAR WIDE AWAKE:

When you ask me if that narrative of mine, "The Carib Captain's Story," is true, you echo the very question that was on my lips when my Carib Captain left me and ran to the other end of the sloop to tend the sail. As he vouchsafed me no answer, I cannot fully answer your query. This much, however, I can say: that local tradition supports his statement that there is submarine communication between the islands of Nevis and St. Kitts. Of course, I have not explored it, but I have hunted monkeys in both islands; and it is a strange circumstance that these animals, so numerous there, do not exist in any other island, north or south, within hundreds of miles. And of all the sly creatures that I have hunted in my life in tropic forests, these are the most difficult to find and approach. I have sat beneath the trees in which they fed, for hours, as quiet as the birds that skipped through the branches, but they never made their appearance. No sooner had I left the woods and taken the trail for the plantation than I would hear them trooping through the trees, grunting and barking derisively, and I almost felt they were making faces at me. In those islands they are very destructive to the sugar-cane, and come down from the mountains in large bands and play havoc with the plantations. It seemed very strange that they should be so abundant here.

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while the other islands of the chain had none; but one day I found the reason given in an old French book written two hundred years ago. It seems that some African monkeys were brought to this island of St. Kitts by some French settlers, and these, escaping to the woods, were the progenitors of the hundreds that now roam the forests there. They are called the "green monkey," but the naturalists have improved upon this and have given them a name that no one can pronounce without choking. They call them *cercopithecus callitricus*, which in my opinion is a rather hard name to bestow upon a poor ignorant monkey who never did them an injury in his life. The negroes eat these monkeys whenever they can catch them, in spite of their hard name, and pronounce their flesh equal to chicken. I need not tell you that I never quarrelled with my negro hunters for my share of the meat, and that I would rather fast forty days than touch a morsel of one. My hunters used to tell me that they never found a dead monkey, or a monkey's skeleton, in the forest, and they said that when one died he was decently buried by the rest. We could always tell when a troop had been in a part of the woods we were traversing, by the broken twigs and fallen fresh leaves, and the half-eaten fruit on the ground. They are very destructive creatures, and waste much more than they eat. Though this species does not possess a prehensile tail, yet they cling to a branch with great tenacity, and when shot never let go so long as a spark of life remains in them. But in this rambling, disjointed letter I have not answered your question, and I fear I cannot until I hear from my Carib Captain. He has such a roving disposition that I cannot "keep track of him;" but as soon as I can fix his attention with a letter I will let you know what he says.

AUTHOR OF "THE CARIB CAPTAIN'S STORY."

POLAND CENTRE, March 13, 1882.

DEAR WIDE AWAKE:

I belong to the C. Y. F. R. U., and our society meets every Wednesday evening; it was organized in November, by a few ladies and gentlemen who took an interest in us children. We elected a President, Secretary, and Corresponding Secretary.

We meet at the home of some one of the members; and our President calls the meeting to order and appoints one of the class to act as President for the evening, so that we may all learn how to conduct meetings in a proper way.

We had to wait for the back numbers of the WIDE AWAKE and some other books, so the President took a great deal of pains to teach us the chemistry of a candle. He gave experiments to show that the flame was hollow, and that the dark centre was vapor, by drawing it off in a tube, and that the light was solid particles; he also showed that it could not burn without fresh air.

Then he turned a glass jar full of water, bottom up on a little shelf placed under water, and put a rubber pipe up through a hole in the shelf into the jar. We all breathed into it to see how much air we needed. Then he told the class to figure on the size of the school-room, and find out how long it would take to breathe all the air in it. Well, it took a great many figures that I don't know anything about, but it needed *ever so much fresh air*, any way.

He has made a great many other experiments to show something or other; but they made such a smudge, that I ran out of the room.

Since our other books came we have had lessons in history, and how to behave. The President of the evening appoints a teacher for each study every evening. Then the teachers give out the lessons to be read and studied, and tell the class to find out as much more as they can for the next meeting.

The boys thought the lessons in behaving were too silly for them, and tried to vote them out, but could not. The teacher called on us to practise hand-shaking, bows and curtsies — and such funny works as we made bobbing and squatting! But the boys did the best, after all. Our teacher told us many things not found in the book; she said never lean our heads against the wall, and every one looked around quick, for more than half of us were doing that very thing. She said wash our hands often, and that she never knew a man but what would wash his hands and face, comb his hair, then clean the comb and think his hands were clean; she asked the class if they ever did — they laughed and said no.

The teachers all try to bring in everything useful; but the trouble is, we all *know* better than we *do*. We have music of some kind every evening. Our next lessons will be from the WIDE AWAKE.

KITTY M. CHENEY.

Members of other C. Y. F. R. U. Circles are invited to write to the Postmistress of the ways they adopt to make their meetings interesting.

It seems that while Mr. Barnum's little American patrons are in high glee over the prospect of seeing the wonderful new baby elephant this same Mr. Barnum has been buying away from London, "Jumbo," the favorite elephant of the English children, and very indignant they are about it too, as you will see in this letter from a lady who knows all about it:

MY DEAR WIDE AWAKE CHILDREN:

You have doubtless all heard of the "Zoölogical Gardens" in the great city of London, called sometimes for short "the Zoo." Well, something very funny has happened there recently, which I think you may like to read about.

First of all, if you happen to have the latest number of the *London Punch*, you will see on the first page a picture of an elephant, covered all over with boys and girls, who are clinging to him in all sorts of positions. Well, that is what I am going to tell you about. This is Jumbo, the largest elephant known in the world, though there may be others as large in the wilds of Africa and Asia. Jumbo was carried to London from Africa when he was a baby about the size of a "bossy calf," and is now twenty-one years old. During these years all the children in London have had splendid rides on his back, and have been allowed to feed and pet him, so that they have grown to love him very much. But, one day not long ago, Mr. Barnum, the great showman, who has the big circus and menagerie, bought Jumbo for ten thousand dollars, which made the little children so sorry that they drew up subscription papers, and offered to give all their pennies if this would keep Jumbo from going away to America with Mr. Barnum. One child of eight years old wrote, "Please do not let Jumbo go to America."

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I have had many beautiful rides on him. I am sure there are many mammas and papas who would subscribe and pay the Zoological Garden Society the two thousand pounds to keep dear Jumbo here."

One little girl who signs herself "Alice, of No. 6, Accl-road, West Hampstead," wants to know why poor Jumbo is to be sold, and to say that, "if it is for the sake of the money, and because the Zoölogical Society is too poor to keep him now that he has grown so big, I am sure that all his little friends here would be only too glad to subscribe enough out of their pocket-money to keep him; and I shall be very glad to send you my sixpence a week for four weeks to begin with."

Then six little correspondents write, "We are very grieved at your account of poor dear Jumbo, the elephant who has given us such nice rides, being sold and taken away from his home. What a shame! Can he not be bought back and allowed to live all his life where he wants to be, and to be happy, and to make little children so? We should be glad to give a shilling each to help to buy him back. If we were rich enough we would give one pound each (twenty shillings). We are six little friends of dear Jumbo. Please say you will have a subscription, and we will send the money at once."

But the children's appeals were all in vain, for Jumbo had been really sold, and Mr. Barnum sent men over to London to pack him in a big — oh! such a big box, to take him across the ocean. They chained up his feet one after the other, and put a great chain over his enormous body and another around his head. He allowed them to do this, submitting quietly to the operation at first. But meantime his little wife, Alice, knowing by instinct that something unusual was being done to her big husband, set up such pitiful cries and moans that Jumbo, hearing these, was incited to rebel, and when all was ready for a start, his elephantship would not budge an inch; he condescended only to reach out his big trunk and take the biscuits offered to entice him, then quietly returned again to his own cell. What will be done in this emergency is not yet known. Of course no number of men can compel an elephant to move against his will, although he may in some way be persuaded after a time.

It is said now that both Queen Victoria and the Prince of Wales desire that Jumbo shall remain in London. Perhaps they can raise money enough to keep him. AUNT CARRIE.

CEDAR RAPIDS, Iowa.

DEAR WIDE AWAKE:

I have never written to you before, although I take a good deal of pleasure in reading your letters. I have the WIDE AWAKE of six months of 1880 bound. My sisters like the "Five Little Peppers" very well. I am thirteen years old. I am the President of the Aid Society of the Little Girls. We send our things to the Foundling's Home in Chicago. If any of the little girls of the WIDE AWAKE have an Aid Society, I would like to have them write to me about theirs.

EVA WILLIAMS.

RIENZI, Miss.

DEAR WIDE AWAKE:

I like to read letters from other children in different States, so I thought some might be interested in mine. I am a little Mississippi girl ten years old. Mamma has taken WIDE AWAKE for us ever since the first number came out, and we

don't think we can do without it. My eldest sister reads it, though she is married and has a little baby. She lives eight miles from here, at the next station. I can go down on the train by myself to see them. I go to school, and take music lessons on the piano. I have not been to school for two weeks. I have had the pneumonia. We have not had any snow this winter, but we have wished for it. For Christmas presents I got four books, a globe, a box of paints and a transparent slate. I enjoy painting the pictures in my little brother's BABYLAND very much. We have three little canary birds all in the same cage. One of them is a fine songster. He sings better when he is by himself. I hope WIDE AWAKE will have some more stories as good as "Five Little Peppers" and "Rocky Fork."

ANNIE R. BYNUM.

DEAR WIDE AWAKE:

I am a little girl ten years old, and my father prints the *Athens Gazette*. I thought I would tell you about my cats. First I will tell you their names. There is Tommie — he was a baby when I was baby. He is as old as I am, and the color of him is gray. And Fred — he is just the color of Tommie, and is Tommie's kitten; he climbs upon everybody's shoulder, and is very impudent. And Beatrice came to us, and Pet came to us, and Topsy came to us. And Blackie is so very black that we named him Blackie. We have six cats.

EVA HINTON.

The Postmistress would say that she thinks the "six cats" speak volumes for the Hinton household, and Eva is invited to look out for a very beautiful story by Dr. Mary J. Safford, "The Biography of a Cat," which is to appear in WIDE AWAKE this year.

CLARKSVILLE, Tenn.

DEAR WIDE AWAKE:

I am a little girl seven years old. I want to tell you about my dolls; they are named Katy, Edith, Cora, Mary, Lillie, Betsey, Ella, Hildegard and Gretta Brinker. I made a play-house in grandma's easy-chair. Mamma drew a pretty picture, and I made four copies and pinned them up in my play-house, and then I cut the edge off of an almanac and pinned it up, and the house looks real pretty. George and Bertha have dolls, and they come over and play with me, and we have real nice times.

Now, I want to tell you about my chickens. One of my hens is named Dominique; last spring we set her; but she did not care whether she got on her own nest, and when she hatched we thought she would not make a good mother, so we gave her chickens to another hen. Two days after, another hen hatched, and Dominique, who was on the roost, saw the chickens by themselves. She deliberately walked down and took possession of them. Mamma said she might have them, and she took very good care of them too, until they were four weeks old, when there came a rain-storm, and Dominique leaving the chickens, went in the hen-house, and she never would take care of them again.

If Mary R. West will give me her recipe for butter-scotch, I will be very much obliged.

ETHEL STREATOR.

PUBLISHERS' DEPARTMENT.

POLLY'S SCHEME. By Corydon. Boston: D. Lothrop & Co. Price \$1.00. Here is a book that ought to create a sensation; bright, breezy and jolly; full of life from cover to cover, and worthy a place in any of the countless carpet-bags which will be packed by vacationists this summer. "Polly's Scheme" is one that has occurred to hundreds of weary city-dwellers when casting about to find ways and means to spend the summer months comfortably and profitably. It was for herself and husband to rent a nice little furnished house in the country for the summer, persuade their friends to live with them on the coöperative plan, save money, and be happy. Polly and her husband were young and inexperienced, and imagined that they had made an original discovery. They were successful in securing just such a place as they dreamed of, and took possession, with the promise of boarders as soon as the season should open. The book is a history of the occurrences and happenings of that summer, and a most entertaining history it is. From the sudden advent and equally sudden departure of Mrs. Vivian Sylvester—who insisted on having a fire lighted every morning to take the chill off the air for the sake of her poodle—down to the close of the season when the curtain falls on the story and its characters, it is full of surprises and humorous incidents. The character drawing is clearly and skillfully done, and the whole book hasn't a dull sentence in it. It is just long enough to be read in a single afternoon, and the laziest man in the world could not possibly go to sleep over it. Mark it down for a sure place in the vacation bundle of books, even if it has to be read before that time. It will bear a second perusal.

TODAYS AND YESTERDAYS. By Carrie Adelaide Cooke. Boston: D. Lothrop & Co. Price \$1.25. This pleasant story is from the pen of the author of *From June to June*, and is intended for the reading of girls who have reached that age when their real mission in life seems to commence; the age when school-days are ended, and the sphere of duty is enlarged by wider acquaintance and new responsibilities. The story opens at a New Hampshire seminary on the eve of examination day, and the principal characters are three girls, school-companions and fellow-graduates. It is not a story of incident, nor does its interest depend upon strong contrasts or vivid descriptions. The narrative is a quiet following out of the currents of these three lives, with their various changes, their joys and sorrows. A strong religious element permeates the book, and it will be found a valuable addition to Sunday-school literature.

THE CLASS OF '70. By Helena V. Morrison. Boston: D. Lothrop & Co. Price \$1.25. Here is a bright, sharp, aggressive book, whose author keenly appreciates the necessity for reforms in church and society, and points out, through the channels of a story, some of the means by which they may be accomplished. Helen Vernon, one of the principal characters of the book, is a high-principled, warm-hearted, quick-tempered young girl, a member of the graduating class of the village

high school in the opening chapter of the story. Among her companions are Trissie Bruce, a good-natured, butterfly sort of a girl; Nell Horton, careless and unmethodical, but clear-headed and true-hearted; Olive Warner, proud, rich, and brilliant; and Rose Nason, quiet and sweet-tempered. These are the principal actors in the drama which follows, the author tracing their different courses after leaving school, and showing the effect of varying influences upon their separate characters. One of the principal objects of the author is to show the weaknesses of some of the methods employed by temperance workers, and to combat the arguments of a certain class of the opposers of the temperance movement. In speaking of a certain class of Reform Clubs, one of the characters is made to say:

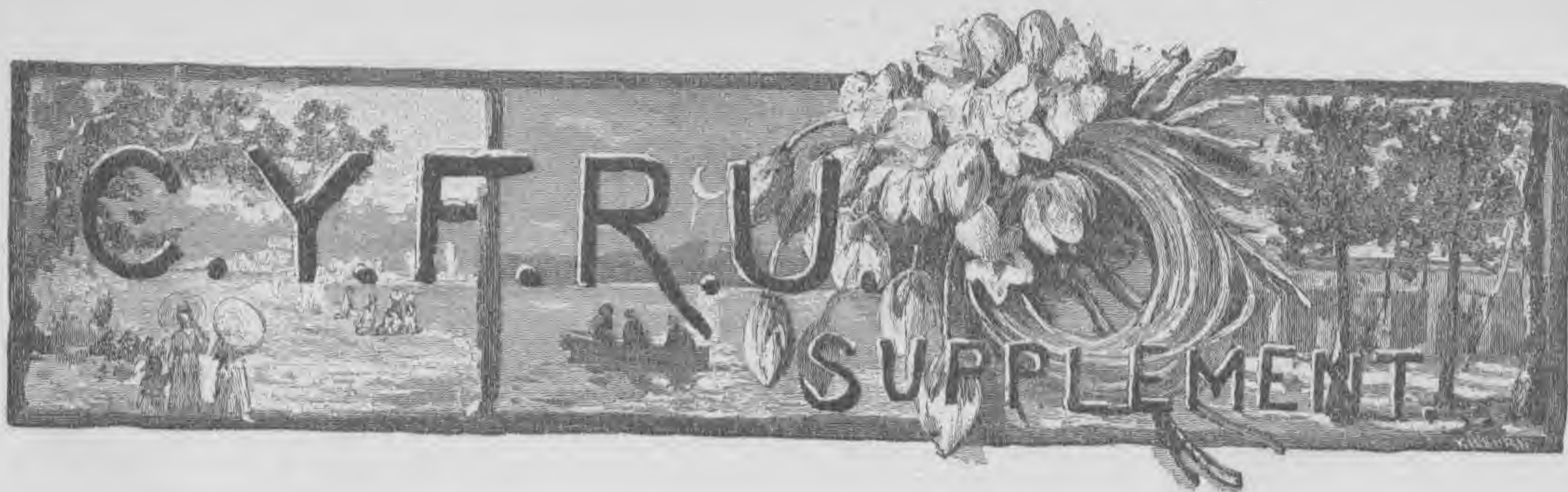
"I've seen a brother stand outside one of these Reform Clubs for a single transgression, while a few brilliant young men and women sang 'The Old Man's Drunk Again.' In clubs like this the pledge was second to the constitution, and that in turn second to the admission fee, and the subject that agitated the united mind, was how many gallons of ice-cream, and how many cases of strawberries, would supply the next dancing festival."

Again, in speaking of the lukewarmness of many professing Christians, and even clergymen, the author puts the following indignant speech into the mouth of Nell Horton:

"I don't belong to the Church, and I never mean to unless my religion means something more to me than an hour twice a week of sleepy church-going. I think if logic consists in laziness, we have plenty of logical Christians. If I could understand why a little enthusiasm would be amiss in religious work, I should be glad. It seems to me it would warm and give life to the whole spiritual existence."

The author does not mince her arguments, but sets them forth clearly, strongly, and convincingly. She evidently, like one of her characters, "hates all half-way people and methods," and puts into her pen all the strength of her convictions. The book is one that cannot fail of making a strong impression.

DOCTOR DICK: A sequel to "*Six Little Rebels*." By Kate Tannatt Woods. Boston: D. Lothrop & Co. Price, \$1.50. Ever since the publication of that charming story, *Six Little Rebels*, there has been a constant demand from all quarters for a continuation of the adventures of the bright young Southerners and their Northern friends. The handsome, well-illustrated volume before us is the result. The story begins with Dick and Reginald at Harvard, with Miss Lucinda as their housekeeper, and a number of old friends as fellow-boarders. Dolly and Cora are not forgotten, and hold conspicuous places in the narrative, which is enlivened by bright dialogue and genuine fun. What they all do in their respective places—the boys at college, Cora at Vassar, Dolly with her father, Mrs. Miller at Washington, and the others at their posts of duty or necessity, is entertainingly described. The story of the fall of Richmond and the assassination of Lincoln are vividly told. One of the most interesting chapters of the book is that which describes the visit, after the fall of the Confederacy, of Reginald's father, General Gresham, to Cambridge, and the rejoicings which followed. The whole book is full of life and incident, and will be thoroughly enjoyed by young readers.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

IX.—THE TRIUMPH OF AN IDEA.

BY MRS. M. E. W. SHERWOOD.

DID you ever hear of Carthage? If you will take your map, you will see the Mediterranean, and that famous boot of Italy, kicking poor little Sicily out into the water as if she were a pedlar. Right under Sicily, just west of it, you will see a little peak of Africa looking up saucily, as if to say, "How far are you going, neighbor?"

Well, that is Tunis now; but it *was* Carthage! and that is just what Carthage was always saying to Rome, proud and powerful neighbor. Carthage was the most beautiful, rich, luxurious place you ever dreamed of, but she hated Rome, that "strong young republic of the West." Rome was making laws for you and me, while Carthage was making money; Rome was making soldiers of every citizen, and also patriots, while Carthage was making seamen and merchants.

There was one Carthaginian who hated Rome so bitterly that he took his three pretty little dark boys, Hannibal, Hasdrubal and Mago, to the altar of their gods, and made them swear a vow of hatred to Rome so long as they should live! He boasted, this old fellow (his name was Hamilcar Barca, or the Thunderer), that he had trained up three "lion's whelps to prey on the Romans."

Hannibal, the eldest of these boys, never forgot that solemn scene at the altar. He grew up a splendid character, bold and wise, patient and strong. Like most men who become in love with *an idea*, his own life was noble. He had great genius, more than his brothers, perhaps; but he dearly loved them, and never forgot them. You must have read how he started from Carthage, with his immense army, to go to Rome: ninety thousand foot soldiers and a lot of elephants, and his famous Numidian cavalry, great black men on great black horses. How splendid they must have been! He fought the Romans in

those great battles at Trebia, Thrasymene, and at Cannæ. His Numidian horses had eaten up the corn, and had trampled down the vineyards, and had frightened the Romans nearly out of their wits. They thought the "*dire African*" was always at their gates. "*Hannibal ante portas*" became a proverb. Then he went down to a place called Capua, where, unluckily for him, he stopped. There his army drank too much wine and got demoralized. If he had gone home he would have done better. Even to-day, if a man wishes to speak of a place where his ruin began, he says, "That was my Capua." Here Hannibal stayed several years.

Alas for Rome! there was another of the "lion's whelps" coming around by Spain and France and Switzerland, and over the Alps, to help Hannibal; and that was Hasdrubal, his brother.

The savage tribes who had fought Hannibal joined Hasdrubal, for they liked the idea of getting to that great city, Rome, of which they had heard, where they thought there was a great deal of plunder to be got. So Hasdrubal's army rolled up like a big snowball, and he gathered men and strength at every league. He crossed the river Po, and found the brave city of Placentia full of fight. Placentia kept him some time at bay.

Now just think of Rome with two of the "lion's whelps" on either side of her throat! Hannibal had never stopped harassing her. Here was Hasdrubal nearly arrived. What should she do? Six armies were levied for her defence. Seventy thousand Romans served in the fifteen legions, but they had been so drained and depleted by Hannibal that they could hardly call a large army into the field, and they had no money, very few military stores—they were at their wits' ends.

Now there was one man named Caius Claudius Nero, who had fought against these two terrible Carthaginians in Spain and Italy. You may be sure he hated them. Then there was another cross old fellow, named Titus Livius, who hated everybody, even

Nero. He, Livius, had been badly treated by Rome, he thought, so he was sulking down in the country on his farm when the dreadful news got to Rome that Hasdrubal was coming, sweeping all before him. The Senate sent for Livius (for they must have two consuls, one a Patrician and the other a Plebeian), and so they apologized to old Livius, and begged of him to put his own quarrel in his pocket and fight for Rome again, which he sulkily agreed to do. So he marched up against Hasdrubal, beyond the River Metaurus as far as the little town of Lena. The consul Nero was to go to the south to fight Hannibal. The two great brothers were only two hundred miles apart now, and Rome was between them!

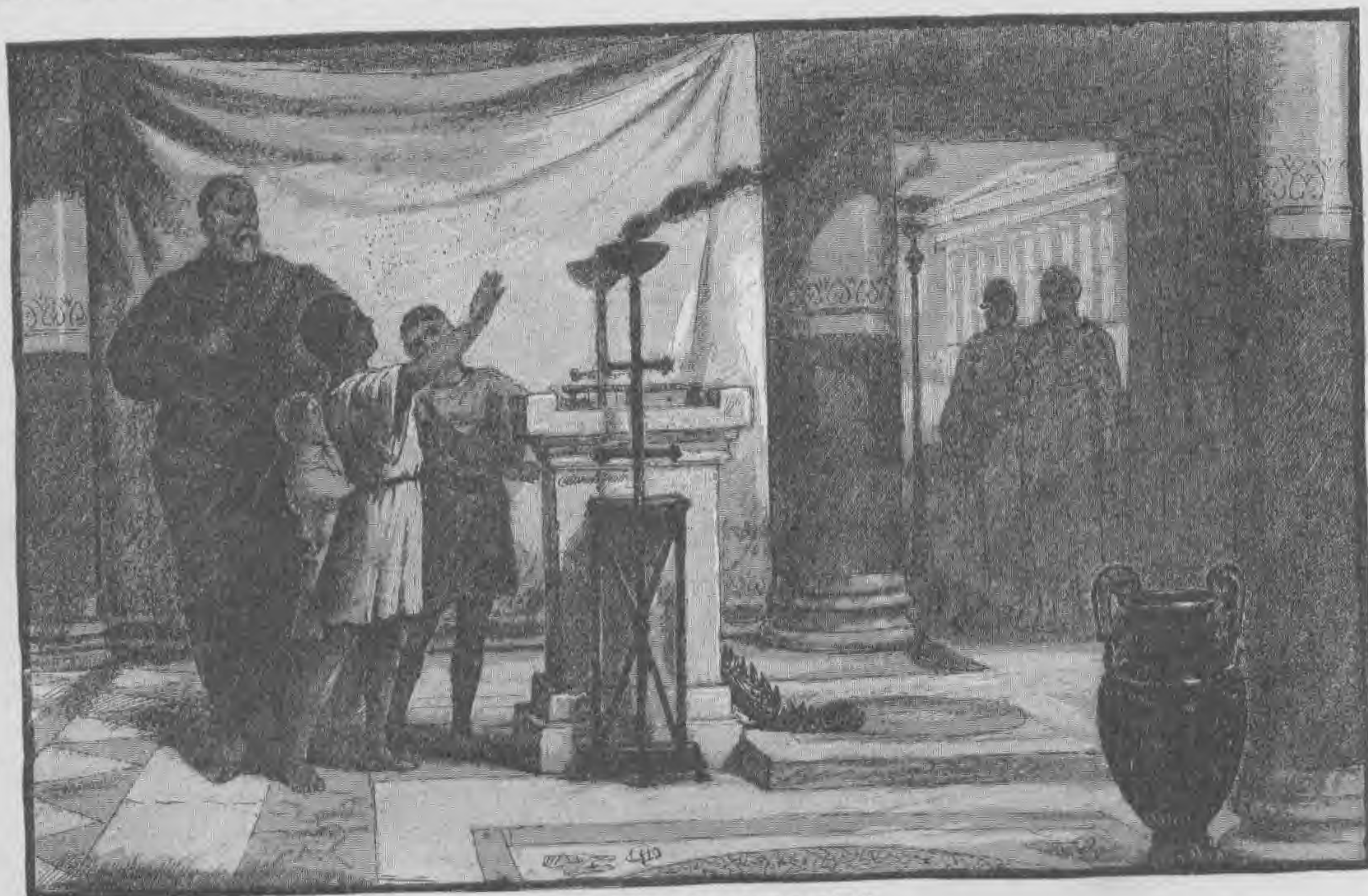
Now just here consul Nero had an inspiration: he knew that neither he nor Livius was strong enough to fight either brother alone; so he wheeled round

army of deer led by a lion, than an army of lions led by a deer." Night and day they marched bravely on, resting only by relays in the wagons of the common people, and cheered by their help and sympathy.

Now if the consul Nero had failed, Rome would have failed to see how great he was; they would have blamed him. That is very unfair, for he would have been just as praiseworthy. He did not fail, however, as it happened. Nero reached Livius by night, and his men were received into the camp silently. No more tents were spread, no sign given to the enemy that a great re-inforcement had arrived.

So next morning the red ensign, which was the signal to prepare for immediate action, was run up in the Roman camp.

"Aha!" said Hasdrubal, "ready to fight, are



THE VOW OF HATRED TO ROME.

without saying a word to anybody, and prepared to march to the north. He caught one of Hasdrubal's messengers with letters to Hannibal, just as we caught Major André riding away from West Point, and he determined, after reading that letter, that these two brothers should never meet. There was a law forbidding a consul to make war or to march his army beyond the limit of the province assigned to him; but Nero said "Pooh!" when he thought that by breaking that law he might save Rome. "I shall lose my head anyway," he probably said to himself, "but I will save Rome."

The soldiers caught the spirit of their leader, as soldiers always do; hence the proverb, "Better an

you? And what did I hear this morning? *Your trumpets sounded twice!* There is an additional superior officer in the camp! Let me ride down and reconnoitre!"

And as the shrewd general did so, he saw that there were some poor tired horses there, and some soldiers whose armor was dull, rusty and stained.

"Forced marches! aha!" said the clever Carthaginian. "The two consuls are before me!" If Hasdrubal's action had been as quick as his wits, he would have beaten both of them. But this sudden shock unnerved him. He lost heart and head, and fell back.

At the first watch of the night Hasdrubal led his

men silently out of the camp, and moved northward toward the Metaurus, in the hope of placing that river between him and the Romans.

His guides betrayed him, and led him away from that part of the river which was fordable. Then the guides made their escape, but left the poor general and his army wandering along the steep bank, seeking in vain for a place to cross. When day dawned, Hasdrubal found that great numbers of his men in their fatigue and impatience had lost all discipline and subordination; the Gallic auxiliaries were drunk, and the Numidian horsemen were furious. He could not retreat; he must go back and give battle.

So, like a great general, which he was, he threw his Spanish infantry, armed with helmets and shields and short cut-and-thrust swords, forward; and these, with his Carthaginians and Africans—he himself amongst them—formed the right wing. In the centre he placed his Ligurian infantry; and on the left he placed the drunken Gauls, with long javelins and huge broadswords and targets; and in front he sent his terrible colossal elephants with their Ethiopian guides, moving fortresses, dangerous to friend and foe.

He greatly outnumbered the Roman forces, and his Africans and Spaniards were stout soldiers and understood the Romans well. The Carthaginians' elephants gave great trouble; the consul Nero and his forces had to climb a steep bank, so that for a while it looked as if Hasdrubal was to win. Old Livius attacked the Spaniards "with a pious bravery," as Sir Walter Raleigh says in his fine old-fashioned English, but it had no immediate result; the Romans got dreadfully punished.

But here the consul Nero had another inspiration. He saw that this vast force, surprised, and at first endeavoring to retreat, were demoralized; there was confusion in the ranks; so instead of fighting on,

allowing them to kill his best men, simply as desperate men will fight, he determined to defeat by tactics, or, as we should call it in other things, *cunning*. So he wheeled a brigade of his best men round the rear of the rest of the Roman army and fiercely charged the flank of his enemy. It was as successful as it was sudden. The Spaniards, the Ligurians, the Gauls and the Carthaginians rolled back in disorder, and, fighting gallantly to the last, were overwhelmed, and beaten.

Poor Hasdrubal! he saw that the battle was lost, and he determined to die. He spurred his horse into the midst of a Roman cohort, and fell, pierced by a hundred swords.

Nero, with savage brutality, cut off his head, and sent it by a detachment of soldiers to Hannibal. They threw the bloody trophy into his camp.

Then Hannibal wept aloud. He had loved this brother, the playmate of his boyhood, this noble brother so much like himself. Ten years had passed since he had seen him. Year after year he had been waiting for him, and hoping to join with him in their great life-work of beating their hereditary enemy; but when that beautiful head, with its crown of clustering black curls, that noble, pale face, bearing still on its sculptured features the agony of defeat, met his gaze, the great heart of Hannibal sank in his bosom, and he groaned aloud.

The march of Nero, by which Rome was saved, was one of the grandest exploits of any military commander recorded in history; and yet he is scarcely known to us, except as the conqueror of the noble, picturesque and wonderful Carthaginians. It was not the triumph of one man, or one nation, however. It was the triumph of an *idea*. The Roman world was destined to live.

COLLATERAL READING.—Full accounts of all the characters mentioned in this paper may be found in Smith's "Dictionary of Greek and Roman Biography," and all good histories of Rome or Carthage tell the story of the Punic Wars. Jacob Abbott wrote a book about Hannibal.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

VIII.

A MYSTERIOUS ONE.

THE country boys may perhaps have a good laugh at my expense when I say that I once asked a lad who was a hunter and trapper to bring me a live weasel. He was to have a reward for it; and the conditions were that the weasel should be uninjured and should be in a wire trap where he could be seen.

I merely wished to cultivate the acquaintance of the tiny quadruped, see what he was like, what he would eat, and what he would do; and then I should liberate him in a granary where there were plenty of rats and mice. That lad must have been inwardly amused at the plan, from a woman too, though he made no sign, but listened respectfully, and answered with discretion, as I then thought. But it seems to me now that he was even with me when he said that he did not think that one could be got in that way, and

that there were no weasels about in the winter (it was then winter), for "they all go down into the ground under the snow. I have seen their holes."

I could not tell whether he was making sport of me or not; but I did not believe in their hibernation; so, like that persistent child of Mrs. Piatt's poem who was determined to know

"Where do the gipsies go
When there is snow?"

I asked questions of people who were well informed, because I was very curious to learn everything possible about these animals, which are so common and at the same time so hidden and uncertain.

One of them was as likely as not to have been under my own house at that very minute. One may be there now, or under yours. And if he made so free of the premises as that, I, for one, desired to know something about him. I had to accept the mystery, but I would at least make an effort to learn all that was practicable about this probable co-tenant. I had never set eyes on a live weasel, except as a kind of vanishing shadow, associated in my remembrance with shocking stories about the chickens being found in the morning with an ugly hole in their throats. After a good deal of suspense, and having our curiosity wrought to the highest pitch, some of us children were tantalized by a glimpse of a very small, slim, brown animal speeding away into the darkness under the barn.

The weasel is not findable—if I may be allowed the word—and that is what makes the case so aggravating. There is no means of knowing where he is. If he had a home he would be there sometimes, and you could watch it, as you can the den of a fox or the burrow of a woodchuck. But a home he never has. He is a citizen of the world, and roams about, from the door-yard off into the fields and woods even—usually by night—and you might as well look for a last year's autumn leaf, or hunt for a needle in a haymow.

Occasionally one comes boldly forth in the daytime, as happened not long ago at the house of one of my friends. Her little boy was out playing by himself on the banking by the door, and every few minutes she heard him laughing and clapping his hands in the greatest glee, and then all would be silence again. She had the curiosity to go out to see what it was that amused him so, and, watching the spot on which his attention was all absorbed, she soon saw the head of a weasel pushed forth from under the house, looking exactly, as she said, like that of a little puppy. The animal evidently wanted to come out and cross the road to the barns, but every time it made the attempt the laughter of the child would cause it to dart back out of sight; and this curious pantomime had been for a long time going on.

The weasel is daring and open enough when he has something at stake, or if he is attacked, or thrown

off his guard in hot pursuit of his prey. In his rage or hunger he is sometimes utterly regardless of the presence of human beings. Some men who were in their farm-yard at work were startled by hearing "all of a sudden such a squealing of rats that the air overhead seemed full of it;" and looking up they beheld a regular stampede of those vermin. There was a weasel running along the ridgepole of one of the barns, and the rats were in full flight right out in sight, scampering with all their might over the roofs of both barns, anywhere, anywhere, to get away from their murderous pursuer; and they were in a perfect agony of terror, making such prolonged, piercing, incessant squeals and squeaks, one would suppose they were being torn limb from limb. It was all over in a few minutes, without slaughter. But I will venture to say that those rats kept themselves hid for one while, and at the first hour when they could feel that they were safe they held a secret and sad council of war, and unanimously agreed to migrate in a body—as rats often do—to some distant place. You are aware that once in a while a great company of rats has been seen after nightfall (if those who professed to be eye-witnesses told the truth), journeying to some new home. It has been hinted that they had by some means come to the knowledge that there was plenty of corn in the land to which they were bound; but who knows that they were not impelled by fear, and were trying to put themselves as far as possible from one of these stealthy, terrible foes?

Now and then some old warrior of a rat will stand his ground and fight like a tiger; but as a general thing the whole race are in mortal terror of a weasel. He is such a slim thing that he can go in at any chink where a rat can enter; and so supple that he can wind himself about, and adapt that slender, pliable body of his to any turn or bend in the narrowest passage-way where rats can go. And he is as silent about it as a ghost: you cannot hear him coming or going; he makes no noise, but slips nimbly and stealthily about through a hole in the wainscot and between the partition walls of the rooms. Besides he is as artful as a fox. You will remember that in the old fable he was so shrewd that he watched while Reynard crept into the pile of corn and ate, and then, from a safe distance, taunted him with being unable to get out again; and that other weasel who had grown too old to chase mice, but meditated a trick which would serve as well, and, hiding himself in a heap of meal, caught all he wanted.

When you ask where the weasels stay when they are not scouring about the country, you will perhaps be told "in the haymow" or "under the barn or the house;" and I have known cases where children playing on the hay had seen one go into it, and so, not having the wisdom of experience, they had gone to work with their little hands, trying to dig down where he was. But the nearest approach to a home, or an actual tarrying spot for a night, that I ever

heard of, was at a house where they had one of those old-fashioned "roll-ways," once so common. Some of you know that great square door, hasped fast over the opening down which the barrels of cider used to be rolled into the cellar; and how broad it was and slanting; and what capital fun it was to slide down on it, to the detriment of your jackets and trousers—and the girls liked it too. This one had been long disused, and a quantity of straw had been tucked in at the sides to keep the cold out; and in the snug and safe retreat a weasel made his bed. He had no family; he was a hermit, taking lodgings by himself.

I do not know anybody who has ever seen a nest of young ones. The parents are so secretive that they take good care that no one shall find out where they are kept. There is a story told of a man who was ploughing in his field when a weasel suddenly flew at the horse, and began to bite and claw at him in the most vicious manner. The reason for the attack was at once apparent: in turning over a furrow near the wall a nest had been ploughed into; and the mother was so desperate and fought so like a fury that the peaceful husbandman was glad enough to drive on beyond her reach.

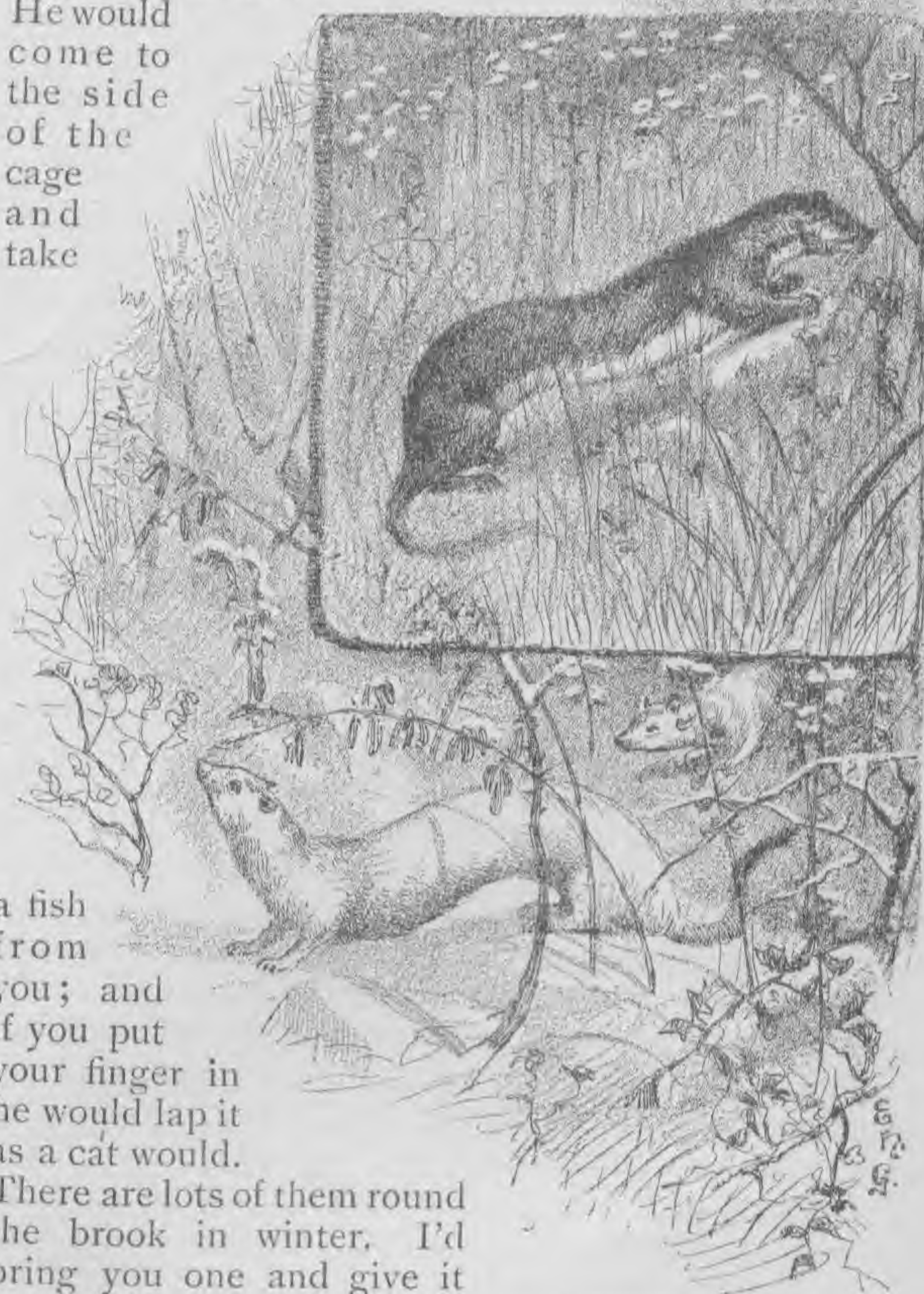
To go back now to the beginning—it is *not* impossible to catch one! On the contrary, it is a tolerably easy thing to do. I gave up about having a live one, and contented myself with two which had been stuffed and mounted. One of them is a summer specimen; the other, a winter. The former is of a dull, mink brown, except on the under side, where body, throat and feet alike are faced with dingy white. The lines where one color leaves off and the other begins are as sharply marked as if two kinds of fur had been seamed together there. He looks as if he had been taken and fixed in place just when he was on the keen run: his long back curved from neck to tail; his head forward, and nose out; eager, acute, and wide awake; and his whiskers stiffly pointed at a sharp angle. All those vigilant hunters, from the domestic cat to the wildest creature, have such sensitive whiskers.

The other is not quite so spirited and debonair. His attitude is rather as if he were meditating. His fur is white as ermine, except the tip of the tail, which is black, for it does not change color with the rest. The coat begins to turn in October, or about that time, fading to a homely gray, and then becoming of a greenish-white cast. He is a pretty little beast, slenderer than a baby's wrist, and his head is the biggest part of him.

In concluding, I have something to tell which certainly has an air of improbability about it. Just as

I had written that last paragraph, a man whom I never before saw or heard of, actually offered to bring me a live weasel. He lives in a district of people who have a good deal to do with fishing and gunning, and he has often caught weasels and minks. The brook at his door, he says, is "a great place for them." He baited a box-trap with a piece of squirrel, and caught a weasel, which he put into a bird-cage, and kept him through the winter. "They will not gnaw out of a place as a rat will," he said; "their teeth are more like a rabbit's. They will eat anything a cat will—milk, meat, rats, or anything—and are very fond of fish.

He would come to the side of the cage and take



a fish from you; and if you put your finger in he would lap it as a cat would.

There are lots of them round the brook in winter. I'd bring you one and give it to you, if you would take it."

MYSTERIOUS ONES.

And then, as he stood with his hand on the latch, he cast his eyes up to the ceiling, and added, "One would look pretty hangin' up here, and turnin' white in winter, and turnin' gray in spring. They are an awful neat, splendid, pretty creetur!"

WAYS TO DO THINGS.

IX.—HOW TO PHOTOGRAPH.

BY FRED A. OBER.

NEARLY ten years ago I took lessons in landscape photography, and since then have made hundreds of photographs of places rarely visited, of strange people and wonderful vegetation, which have delighted the eyes of many friends. Assuming that many members of the Reading Union will wish to retain more permanent pictures of vacation scenes this summer than can be carried in memory alone, I propose to show how they can do this with little trouble and expense.

First, I must congratulate you upon your good fortune in being able to enter upon the study of photography in the year 1882, rather than twenty, or even ten, years earlier. In no other department of science, except perhaps in electricity, has such an advance been made. It was only in 1839 that Daguerre published his success in obtaining an image on a silver plate, and in 1851 that the collodion process—that most in use at the present day—was given to the world. But within the past few years improvements have been made, by means of which the art is not confined to professional workmen, but can be enjoyed by all the young folks in the land.

I well remember the disadvantages attending outdoor photography, even no longer ago than when I made my first attempts. By the collodion or wet process it was absolutely necessary to carry a large trunk full of chemicals and bulky apparatus. Among other things there was the "dark tent;" in its most compact form it was a box, about two feet and a half square, with curtains and aprons arranged so as to exclude all *actinic* or chemical light. After setting your camera in position and focusing the picture, you had to retire into the dark tent, arrange the curtains about you to exclude all outside light, and consequently air, and then you coated the glass plate with collodion and dipped it into the "silver bath" to make it sensitive to light. This operation required several minutes, and if the day was hot and sultry, the operator in the dark box was nearly suffocated before he emerged with the prepared plate ready for the camera. After exposing this he was obliged to hide himself again in that hot box full of chemical fumes, and there "develop" the picture supposed to be upon the glass.

With the discovery that plates could be prepared ready for use at any time, and that would remain sensitive to the action of light for months, a new field was opened, in which any one could wander who had the inclination. By this discovery all the bottles of chemicals, with the dark tent and the clumsy appa-

ratus, were done away with. Materials for a hundred photographs can now be carried in a small valise or in an ordinary trunk amongst clothes and books.

Though an amateur, and having no greater interest in photography than arose from a desire to secure pictures of the spots I visited, I hailed the appearance of the "dry plates" and their simpler mode of use, for I was heartily tired of the old way. My fingers were always black with silver stains, and my clothes streaked and stained with salts of iron and soda. My accidents, from the tipping over of chemicals, and in struggling over mountain roads and the beds of mountain torrents, were more than I could count on my fingers. In Florida, whenever I crawled into the dark tent—pitched, perhaps, on the border of a swamp or in the deep woods—the mosquitoes and sand-flies would make furious attacks upon my legs and nearly drive me wild, and I would be haunted by fear of the snakes and alligators that might attack me in that defenceless position—with my head in a sack and my hands employed. One day an enormous old billy-goat, taking offence at the outlandish appearance of my tent, as I was at work in it, half concealed from his view, charged on it with such force as to knock us all in a heap. When I had crawled out from the ruins, expecting to learn that an earthquake had passed by, I saw that billy-goat standing calmly by, chewing his cud, and shaking his head sidewise, as much as to say, "Get into that box again, and I'll knock you over a second time!" In the West Indies it was always necessary to hire two negroes to carry my trunk, and as they invariably bore their burdens on their heads, the silver solution would sometimes leave a black streak down their faces, even darker than their ebony countenances!

The new discovery did away with all this trouble. I was quick to see this, and in one of my trips to the tropics carried a camera and a stock of "dry plates." Alas! I had too hastily adopted a crude invention. I climbed mountains, descended into craters of volcanoes, threaded tangled thickets, and penetrated to secluded valleys to photograph new scenes with my new instrument. Having perfect faith in the new invention, I did not test my plates with chemicals on the spot, but kept them till I returned, and then gave them to the photographer to manipulate. My carelessness was well rewarded, for of the nearly one hundred plates, *not one* contained a perfect picture. I was in a condition then to sympathize with the great Audubon, who had a trunk full of drawings, the result of a year's labor, destroyed by mice.

Unlike him, I had not a sufficiently powerful incentive to repeat my travels, and the anticipated pictures were gone forever. Nothing daunted, I next year procured another machine and tried again, this time

in Mexico. In that year the inventor had not been idle, and I informed myself upon the merits of his invention so that my results at the end of the journey were such as greatly pleased me and my friends; for from the plates of glass exposed to light in the camera flashed out fac-similes of strange idols of stone, grand old ruins, snow-capped volcanoes, valleys almost hid in dense vegetation, palms, tropical plants, and the picturesque features of that strange country.

But, without further preface, let me tell you how you may take pictures this summer without any of the hindrances that I had to encounter in my first attempts.

The first thing needed is a camera, which in its simplest form is a darkened box, with a lens in front, through which the scene is focused upon a plate in its back—a plate of glass prepared with chemicals so that its surface is sensitive to the light admitted through the lens.

A few seconds of time is generally sufficient for the transmission of an impression to this plate, and before and after that "exposure" it must be kept away from all light until the "latent image"—the picture we cannot yet see—has been brought out and "fixed" by means of chemicals. This forms the "negative," which is to the finished photograph what an engraved block is to the engraving on paper. To obtain this negative is your first object; having got this, you may produce from it as many prints as you like, at very little cost, either by taking it to a photographer, or by continuing the process and printing them yourself.

While there are several instruments in the market with which the negative can be taken, most of them are so costly as to be beyond the reach of a boy or a girl with a limited supply of pocket money for a vacation trip; hence I shall choose one that is not only very cheap, but which I know by experiment will perform the work for which it is intended. It is the invention of a young man who has a practical knowledge of photography, and is called the "tourograph."

At first sight it is a small mahogany box, eight by ten inches broad, with a strap by which one can carry it. But by pulling out a slide in front a lens is revealed; and by drawing out another slide on the top an inner box is shown full of negative plates. This smaller box is fitted in position on top of the larger one, so that the plates, one at a time, can be dropped into a carrying-rack turned by a screw, in the dark chamber below. This plate having been placed in focus, the lens is uncapped for a few seconds, then recapped, and the glass is returned to the box above, where it is kept till evening, or until a favorable time for development. In this way all the plates—eight or ten—in the box may be exposed, and their places filled with fresh ones later on.

The camera is supported upon a tripod, or three-legged stick, which can be closed up until not much larger than an alpenstock.

This is the outline of the mechanical operation necessary to secure the negative. The plates, being ready prepared and packed in little boxes of a dozen each, are transferred to the camera at night, or in a dark room by day, by the aid of a *red* light. This is obtained by placing a roll of red or orange-colored paper—made expressly for this purpose—around a lamp or candle, as the light that shines through a medium of this color is *non-actinic*, or without the power to produce chemical change in the very sensitive plates. You now have a plate with a latent image of the picture you desire to retain; this plate must pass through a chemical operation before that image will appear.

Imagine yourself in a darkened room illuminated only by the *red* light, with a plate in your hand on which you fondly hope there is a duplicate of the scene before which you had set up the instrument. To all appearances it is a plate of plain glass, one side covered with a film of gelatine, and if you hold it to the light nothing appears to indicate the change that has taken place in that film since it was exposed to the light. The question is, how to bring that picture out from its hiding-place. First, you must have a shallow pan at hand, and place yourself near a good supply of water. Into the pan you pour the chemicals previously mixed, necessary for the *development* or bringing out of the hidden image. These chemicals are, oxalate of potash and protosulphate of iron. To simplify matters, the inventor of the tourograph puts up these chemicals in papers, so that you only have to put into four ounces, or a gill, of water* one paper of the potash and another of iron; mix well, and the solution is ready for the plate. This must be placed in the tray with the film side up, and the solution flowed over it. When completely covered, let it remain, and carefully watch the development.

This is the period of greatest anxiety for the young operator, for it is the critical stage of the proceedings. A few seconds will determine whether you have a picture before you, or merely a square of plain glass. Gradually the details unfold themselves: the "high lights" or white portions first, then the "half tones" or grades of shadow, then the deeper shades of foliage or objects feebly lighted. When the view has come out distinct, seems to progress no farther and to gradually fade away to a deep brown, you have got out all it is possible to obtain from that exposure, and the plate must be removed from the solution, and chemical action arrested by washing in clear water.

Now you have before you tangible evidence of success, but your picture is not complete; it is dull, perhaps obscure, and if exposed to the light of day would quickly vanish. It must now be *fixed* in another solution and in another dish. The "fixing solution" is made by dissolving half an ounce of hyposulphite

*The operator should bear in mind that old saying, "A pint's a pound, the world around," then he will remember that it contains sixteen fluid ounces, four ounces to the gill, &c.

of soda in five or six ounces of water. Into this place the developed plate, and allow it to remain until all the whitish film is dissolved away. If both operations are faithfully performed you will have, on taking the plate from the solution and holding it to the light, a brilliant picture on glass—the *negative*—with all the lights and shadows reversed, the white portions quite opaque, and the dark parts almost transparent.

Now wash very thoroughly in clear water, beneath a tap if possible, or by pouring a gentle stream over the glass for a few minutes, in order to remove every trace of superfluous chemical substance that might work injury. As a precaution against the possible peeling of the film, it is well to dip the negative in a strong solution of alum and water, then wash again, and set up to dry in a slanting position, with the film side next the wall. When perfectly dry a coat of photographic varnish, furnished with the chemicals, is flowed over the coated side of the glass, and the impression is securely fixed, ready for use in printing. Having secured the negative, your object is virtually attained: the possession of a souvenir of a vacation ramble, a favorite view, or of a picturesque camping-place. If it were my negative, I should take it to some good photographer, and let him prepare from it the prints I wanted, as that expense is small, and involves a good deal of labor for the amateur. But I suppose my readers will wish—as I did years ago—to see the whole process, and to make their own prints or paper pictures.

PRINTING FROM THE NEGATIVE.

White paper coated with albumen is made sensitive to light by being floated upon a solution of chloride of silver in water; and this, when dry, is placed against the negative and exposed to the sun. In this way, by pressing the silvered surface of the paper against the film side of the negative, a duplicate impression of the picture on the glass is transferred to the paper. This may be repeated with other pieces of paper any number of times, until hundreds are obtained from the same negative. Instead of attempting to prepare the paper yourself, it would be better to purchase it already *sensitized*, which you can do of any dealer in photographic goods. A printing-frame, or grooved block with a spring back, is used in printing. After having placed it with the negative and paper in the sun, watch carefully. By removing the frame and retiring to a dark corner, you can examine the paper by unspringing *one-half* the back at a time, and thus print to the degree desired. It is best to print a little darker than it is designed to have the print when finished, as it will bleach a little in the subsequent process of *toning*. This toning operation, as well as the cutting up of the paper, the placing of it on the negative and removing it, should be performed in a darkened room. When a sufficient number of prints are done, trim them the size they are to

be when finished, wash in two or three changes of water, and then place in the “toning bath,” made as follows: Chloride of gold one grain, water ten ounces, saturated solution of bread soda three or four drops. This will change them to a deep bluish or purple color, and gives them that lovely tint we admire in fine photographs.

The chloride of gold is sent in solution, as well as the soda, so that you have but to follow the printed directions accompanying them, putting a certain quantity of each in the water, and your toning bath is at once prepared.

After toning for a few minutes, remove the prints, and place in another dish containing an ounce of hyposulphite of soda dissolved in a pint of water; allow them to remain ten minutes, and then remove and wash an hour or more in water—running water if possible—constantly changing the water and moving the prints about. Then dry your prints and the completed picture is before you, ready for mounting on a card, or pasting in an album.* If you wish to obtain merely a “proof,” or a fair print, without the delicacy of shading and tone of the silver print, you can do this with “blue paper,” by simply exposing this prepared paper beneath the negative, and washing and drying without any further toning or fixing.

To recapitulate: For a short trip, fully equipped for taking photographs, we shall need the following:—

A “tourograph,” for plates 4x5 inches, with alpenstock tripod and lens	\$15.00
One dozen 4x5 plates	1.00
One graduate (or measuring glass)50
Two developing pans40
One pound oxalate potash, in papers ready for use, 60 cents, half pound protosulphate of iron, in papers, 10 cents70
One pound hypo ² soda, in papers, 10 cents, six ounces varnish, 50 cents60
Sum total for apparatus and chemicals sufficient for development of fifty negatives	\$18.20
If you will insist upon printing your own views, then you will need in addition—one printing frame60
One bottle chloride gold sufficient for a certain number of prints as stated in directions with it, 50 cents, one bottle bicarb. soda, 10 cents60
Sensitized paper for one dozen prints25
	\$1.45

In round numbers, for \$20.00 you can be fully prepared to set up for yourself as an amateur photographer, and after many trials, with diligence and perseverance, can hope to secure photographs of scenery, interiors, and even portraits, that will compare favorably with the work of professional artists. The above is such an outfit—except that I had a larger camera and larger stock of plates—as I have carried to the West Indies and to Mexico.

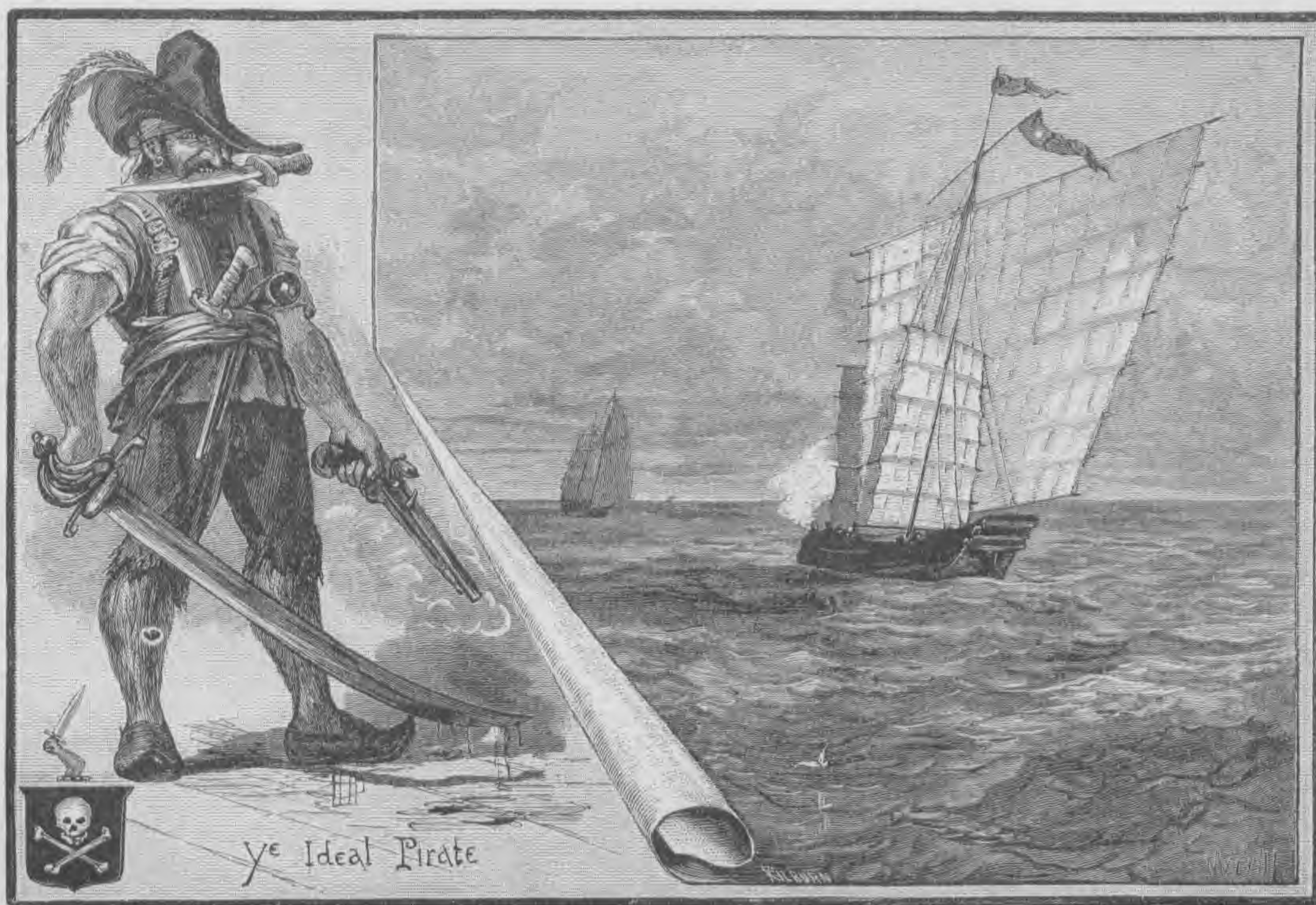
* Many preparations are advertised for sticking the prints to the cards, but common starch paste is about as good as anything. Mix the starch in cold water, very thin, and then boil it, constantly stirring it to break up lumps, and remove from the fire soon as it reaches the boiling point. The prints should be wet and pasted on while quite moist, rubbing them down beneath a sheet of blotting-paper from the centre to the margin, in order to expel all air, that would otherwise cause lumps or wrinkles.

Since my return, however, I find that my friend, the inventor, has produced yet another instrument, which he calls his "pocket camera," which folds up into a small package but one inch and a half in thickness, and weighs but *twenty-four ounces*. This is so constructed that double plate-holders, each containing two dry plates, form the top, sides and back of the camera, and the entire outfit for the taking of eight negatives, sold for ten dollars.

It is only fair to state that other apparatus and outfits can be purchased at rates almost equally low, notably those of the Scovill Manufacturing

Company, of New York, who furnish complete equipments from ten dollars up. While I recognize the excellence of these articles, I have selected the "tourograph," as being something with which I have experimented, and likely, from its simplicity, to meet the wants of beginners.

If you can secure some old room in the garret, or in some unused corner, cover the window with yellow or orange paper, excluding all other light, and take to it such simple chemicals and apparatus as I have indicated, then what a delightful world for experiment and research is opened to you!



A ROBBER SHIP.

OLD OCEAN.

BY ERNEST INGERSOLL.

VII. — ROBBERS OF THE SEA.

AS on land there are robbers and highwaymen, so on the ocean robber-ships have always been lying in wait for vessels loaded with treasure, and have landed crews of marauders to make havoc with

rich seaboard provinces. Such robbers on the high seas were termed pirates—so named from a Greek word meaning "one who attacks at sea"—and their crime was visited by the old laws with the most torturing methods of death.

The first pirates who figure in history with any

great fame were those who had taken possession of some islands in the *Ægean* sea, and who made forage upon the commercial vessels plying between the western and middle parts of the Mediterranean, and the rich cities of the Syrian coast and the Bosphorus. You will remember that, when Julius Cæsar was a young man, and was making a voyage to the East with a large number of soldiers and other persons, he was set upon by pirates, captured and carried away to an island where they had their homes and warehouses.

Life was held cheap in those days by kings and subjects both; it need not surprise us, then, to learn that these Greek or Byzantine pirates were accustomed to kill all their prisoners as soon as they found nothing more was to be gained from them. Their usual plan was to tie them, two together, back to back, and hurl them alive into the sea. Some they tortured in order to make them reveal further riches, others they retained as material for a little amusement called "walking the plank." Prisoners selected for this pleasantry were treated with the most extraordinary politeness and given the best of fare for several days, until they came to have the greatest confidence in their captors, and think them very good fellows after all. Then some fine afternoon a plank would be pushed out across the bulwark, and, amid a profusion of bows and compliments, the amazed prisoners would be invited "to walk home."

The intricate channels, many harbors and rich islands of that archipelego remained a favorite hiding-place of sea-robbers, and is so yet, though every few years, from Cæsar's time till now, the kings of the surrounding countries have sent expeditions to break them up. In the sixteenth century piracy in that region was especially strong. The crews were chiefly Turkish, but the great leaders were two Roumanians, the brothers Hayraddin and Aruch Barbarossa ("Redbeard").

These robbers of the sea called themselves *corsairs*, from an Italian word signifying a race; and they generally won, because they had the best and swiftest vessels of that time. Their flag was jet black, and their reputations became equally dark, so that even yet to call a man as bad as a Barbary pirate is to mean that he could not be much worse if he tried.

I have striven to get at the history or origin of the black flag, but have been able to discover nothing about it, except that from time out of memory a black flag has been a sign of piracy, meaning "no quarter;" that is, that all prisoners taken on both sides will be killed. Its only ornament was a skull and crossbones.

Now let us go back to Barbarossa and his career.

Redbeard had, by foul means, got possession of the city of Algiers; and he expended a great deal of money and labor on the perfection of the harbor, compelling all his prisoners and thousands of the citizens to work as slaves on these defences.

Meanwhile his vessels were ranging the length

and breadth of the Mediterranean and cruising out upon the Atlantic, intercepting merchant ships and fighting with vessels of war. The Spanish colonies in America, a few years later, began sending home immense treasures dug in the silver and gold mines of Peru and Mexico, and extorted from the natives, or stolen from the temples of those unhappy countries. These fleets of treasure-ships, though convoyed by war-ships, were often attacked and captured by the corsairs; and whenever it happened that the pirates were defeated, they would land upon the nearest unprotected coast of Spain, France or Italy, and burn and pillage some town in revenge. How galling this was to all merchants and travellers we can hardly understand in these days; but so strong were the corsairs that the fleets and armies of various governments, and even of the Pope, which were sent against them could not gain their stronghold or suppress their cruises, at least for more than a short time. Not Algiers alone, but Tunis, Tripoli and Morocco also harbored piratical vessels in every port, and the rulers shared their spoils. This lasted even down to the present century, and until England got possession of Gibraltar, whereupon she sent a large fleet to Algiers, shelled the city into pieces, burned all the pirate ships, forced them to yield up all Christian slaves, and keep their cruisers at home. That was the end of the corsairs; but there is many a small, sneaking imitation of a pirate yet lurking round the grape and olive growing islands of that sunny sea.

Turkish and Barbary pirates were not the only ones. Though they did not go under that name, the old Norwegian vikings and the rough Norman barons were scarcely anything else in fact, as their neighboring coasts could testify; but this was away back before modern affairs began. Then, when America was discovered and the Spaniards and French began to colonize the West Indies, and to dig mines in the continents of South and Central America, a new set of pirates sprang up, than which the world has never seen worse. These were the Freebooters and the Buccaneers.

As the archipelago east of Greece had sheltered the hordes of the Turkish corsairs, so the many islands, crooked channels, reefs hidden from all but the local pilots, small harbors and abundant food of the Antilles, made the West Indies the safest place in the world for pirates to pursue their work. To these new and wild regions, in the sixteenth century, had flocked bad men and adventurers from all over the world. When the wars and their chances of plunder died out after the campaigns led by Cortez, Pizarro, Balboa and the rest of the Spanish *conquistadores*, many ruffians seized upon vessels by force, or stole them, and turned into robbers of the sea. As a rule, they had farms and families on some island, and only went freebooting a portion of the year, at first. The large island of Hayti, or St. Domingo, was then settled by colonists who were of

three distinct classes — farmers, hunters and cattlemen. The last class of men spent their time in the wild interior of the island, capturing, herding or killing wild cattle. They came to the settlements only now and then to get supplies, and then returned to the wilderness for several months of absence again. Finally, a war having arisen between this and other islands, the trade of the cattlemen was destroyed, and large numbers of them joined the Freebooters, who then became extremely numerous and formidable; and so largely was this due to their new friends that they lost their old name, and were known by the name of the cattle-hunters — *Buccaneer*.

St. Domingo became the headquarters of the *Buccaneers*, but several small islands were also owned and controlled by them. They were made up of men of all nations, but were chiefly Spaniards, Dutch and negroes. They were thousands in number, possessed large fleets of ships and boats, well-armed, and had their regular chief and under-officers. The most noted, perhaps, of these chiefs was Morgan, who was an Englishman.

They had two methods of work. One was to patrol the sea in the track of vessels bound to and from Europe and Brazil or Spanish America, and seize them. Very often the crews were willing, or were compelled, to join the pirates; but sometimes all were killed or carried into slavery. Merchant-ships, therefore, all went heavily armed in those waters, and many were the bloody battles fought.

This work, however, employed only a portion of the *Buccaneers*, and was too uncertain a means of wealth to suit them. They would, therefore, equip a great fleet, enlist men under certain strict rules as to sharing the spoils, and sail away to pillage some coast. There was hardly an island in the West Indies from which, in this way, they did not extort immense sums of money under threat of destruction of the people. The mainland also suffered from the marauders. Great cities, like Cartagena in Venezuela, Panama on the Isthmus, Merida in Yucatan, and Havana, Cuba, were attacked by armies of *Buccaneers* numbering tens of thousands of men. Sometimes their fortifications held good and the enemy was beaten back; but sooner or later all these cities, and others, smaller, were captured,

burned or partially burned, and robbed of everything valuable that they contained.

"Why did the citizens not hide their wealth?" They did; but the *Buccaneers* put to the most dreadful tortures men, women, children, slaves — everybody — until they would tell where their money and jewels were buried. It is sickening to read of the crimes and suffering committed by these wickedest of men. For years and years they were the terror of the whole Caribbean region. Nor did their enormous riches do them a particle of real good, for they wasted it all, the moment they got home, in wild rioting, so that the spoils earned by months of hardship, and exposure, and wounds, and danger of death, would be spent in a week of carousing. Before the end of the century, however, the combined naval forces of all the nations interested in the commerce of the new world broke the power of the *Buccaneers*, and their depredations ceased. Their story is one of the wildest, most romantic, but most terrible pictures in the history of the world.

For the same reason as in the case of the corsairs and the *Buccaneers*, the East Indies have always been infested with pirates, whose light, swift vessels could run in and out of intricate channels among the dangerous coral reefs, where government cruisers dare not follow, while the people on shore sympathized more with the pirates than with the police. The East Indian sea-robbers, however, are, as a rule, natives of that region — Malays, Borneoans, Dyaks and Chinese, with many half-savages of the South Sea islands. This is more like a continuance of savage resistance to civilization than real piracy. In these days of improved vessels and sea-craft, however, piracy, even in Malaya, is weak. Our consuls and government agents watch suspicious vessels; our telegraph warns the naval authorities in a moment; our steam-cruisers outspeed the swiftest craft of the black flag; our rifled guns silence their cheap artillery, and our coast surveys furnish maps so accurate that the pirate no longer holds the secret of channels and harbors where he can safely retreat. If old Redbeard should come back to life and try to be king of the seas as he rejoiced to be a couple of centuries ago, his pride would be humbled in less than a fortnight, and he would gladly return to his grave and his ancient glory.

HEALTH AND STRENGTH PAPERS.

IX.—AT THE GYMNASIUM.

BY MARY E. ALLEN.

I WILL tell you something that Dr. Safford omitted in her papers — that she was so interested

in her little patient she came down to the gymnasium and talked with me about her, urging me to take special pains with her as a representative of the great middle class, which is little interested in physical culture. And it is true that a dozen fashionable young beauties consult me where one comes

who needs strength to "work for a living" — probably not for health's sake, or for strength's sake, but for the sake of beauty and grace.

Therefore when a pale, quiet girl came into my office one day, accompanied by her mother, I intuitively said to myself, "Ah, there she is!" Naturally, I now have a practised eye; I can "diagnose" my pupils with tolerable correctness. I at once felt a sympathetic constriction of my lungs. I longed to help her breathe. I asked her to stand up and try a full breath. There was no flexibility of the breathing muscles. I asked her to look at herself in the glass, repeating the breaths. "See," I said to her mother, "how those shoulders rise, and down at the waist, where she should grow very large, she grows smaller."

So many girls who come to me breathe up, and not downwards at all. Yes, Dr. Safford was right: she needed "breathing exercises" at once.

Her mother said she had resolved to let her try gymnasium work; and so, asking them to step into the hall and inspect the apparatus, I made out a card for the girl to work by. It ran thus — and as it was a great mystery to the young recipient, I will explain it to you all in my next chapter, as I explained it to her:

MISS KITTIE —

November 20, 1882.

MACHINE.	EXERCISE.	TIMES.
Running-track	Run slowly around	5
" "	Walk rapidly around 3lbs 6oz	4
P. W.	Series B 1-4 2lbs	20e
Shoulder-bar	Nos. 1 & 2	16e
Mattress	Breathing movement on back	
Rowing	Open knee	25
	Rest 5 min. on back	
P. W.	Series D 1-5 2lbs	10e
Rowing Weights	Nos. 1-4 2 1-2lbs	6e
Wrist-bar	Nos. 1-4	
Spring-stand	Jump	
Suspended rings	Hang and swing	
Mattress	Breathing movement on back	
	Rest 5 min. on back	
Running-track	Repeat 1st movement	5
" "	Repeat 2d movement	4
P. W.	Series A 1-6 3lbs	10e
" "	Series B 5-7 2lbs	10e
L. P. W.	Nos. 3-6 2 1-2lbs	6e
H. P. W.	Nos. 1-4 2 1-2lbs	6e
	Rest	
Time per week — 1 hour daily		

Return to me December 20.

As I rejoined them, I observed a doubtful expression on the mother's face. One of my Beacon street pupils was then practising for the pure joy of it with the flying rings; and a young lady was at work with the vaulting bars. The pallid, cold, little new pupil was looking on with both wonder and delight, but the mother shook her head. "Dangerous!" she said. "Too violent by far."

I told her that we observed the law of progression,

and the flying rings were forbidden until the gymnast had developed strength to hold her weight by one hand.

The mother still looked askance at the bars, and rings, and weights, and pulleys and rowing machines. "It seems to me," she said at last, "that I would rather wait and send her into the country to her grandfather's farm, and let her get exercise in the natural way with out-of-door sports."

I inquired as to the sports.

"Why, rowing and lawn tennis, croquet, and climbing trees, and romping in the barn."

"Have you tried this with her?"

"Yes."

"And she comes home in better condition?"

"Well, *no*," said the mother, turning to me frankly. "And that is what I do not understand. She generally comes back to town with indigestion — her stomach really seems to trouble her more in the country than at home."

"Did you ever attribute this to the exercise she took in the country?"

"No, that would be absurd, of course. But still, it is as I tell you."

"Well," said I, "your daughter is not the only one that suffers more after a summer in the country. Let us look at these sports you consider so beneficial. Rowing — glorious exercise, and producing good results if done properly. Your daughter has rowed?"

"Much."

"What was the weight of her boat?"

She opened her eyes: "I do not know."

"Did you ever try it yourself?"

"Never. I do not know how to row."

"Has your daughter ever had instruction?"

"No particular instruction. She is quick, and has caught the motion from her companions."

"How about the oars?"

She was equally ignorant, but the daughter interposed: "Always awfully heavy."

"I never yet have found boats, either at the seashore or on inland ponds, that were sufficiently light for, or had oars proportioned to the strength of nine-tenths of the girls who attempt to row them. They manage very well, excitement and emulation lending them strength, and in many cases escape permanent injury; but it is really reckless. This I have found true in my own experience and by observation, that if the proper muscles for rowing a boat, or for doing any other violent exercise, are not well developed, the strain of the action will be felt in some weak point; and this, with most of our girls, is the stomach and bowels. You see yourself that your daughter is perfectly soft all about the arm and upper back, where an oarsman is always hard. She probably has done her rowing with her stomach muscles, instead of with her arms and back. You may smile incredulously, but I have been weak in that region myself, and undeveloped in the arms, and have felt the strain just there." Turning to the daughter, "Have you

ever felt your rowing here?" touching her stomach.

"Yes, very often; but I supposed it was all right."

"A very good proof that her boat has injured rather than helped her. The muscles of the stomach became weakened and strained, and indigestion has inevitably followed. Had her boat and oars been proportioned to her development, good results would have followed; and the only way we can account for so many escaping who do the same reckless thing is that the exhilaration of the fresh air, the purifying of so much blood, helps one to throw off the strain."

"This is a new idea to me, but it seems sensible."

"Now look at your inconsistency. You will let her row a boat which perhaps you have never seen, of the weight of which and of the oars you have no conception, because custom says 'rowing is the thing' — 'tis the fashion, everybody does it — and yet are afraid to have her pull these weights which are graduated from one pound up, and with me standing right by to watch her face, and decide how much she can safely bear. But now I will give her a breathing exercise to practise at home, and when you come again I will talk with you more about country sports."

I placed the girl flat on her back on a mattress, with a very low, hard pillow for her head. The pillow did not suit her.

"What is the matter with it?"

"'Tis too low."

"On what do you sleep at home?"

"On a big bolster and a pillow."

"One very good reason why your neck has this ugly curve forward and why you run your chin forward. Let me illustrate." I piled several pillows on the one she was lying upon. "Now do you see what it does? It bends the whole upper part of the spine forward, and gives you your bad carriage. Your pillow should only be so high as to make the head lie even when you lie on your side — just to

fill in between the edge of the shoulder and the neck."

While I had been talking with her, she had been breathing regularly and correctly, as every one does lying on his back with loosened clothing.

"Now you are breathing correctly," I said, "though very weakly; were I to let you stand you would breathe as badly as ever. So I want you to take your breathing at present flat on your back."

I placed my hands just above the waist, on her sides, and asked her to take a full breath. The action against my hands was very slight, while the chest heaved. "Now put your hands firmly on me." I took a long, slow inspiration.

"How big you grow, and how hard!" she said.

The mother tried the same experiment with me and with her daughter, much astonished and evidently pained at the contrast.

"You see, as Dr. Safford told you, you do not fill the lower cells of your lungs with air at all, and so gradually they have closed up, when every respiration should swell them all. These muscles need to become more flexible and much firmer. And to make muscles grow they must have opposition or weight. Now the opposition you must use is your hands pressed firmly against your waist pretty high up — by the floating ribs. The abdominal breathing will naturally follow when you breathe strongly in the lower chest. Press yourself firmly, but not too hard at first; take a long, slow breath, hold it as long as you conveniently can; then exhaust the air as slowly as possible. Let your effort be to push your hands out as strongly and as far as you can and hold them there still pressing, and your action will be right. Do that six times every night and every morning, undressed, and with the air of your room as pure as possible. It may make you a little dizzy at first, but you will soon get over that. It will not hurt you."

Then I gave directions about a proper suit for gymnasium work, and bade her come regularly.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

VIII.

BARGAINS AND BUSINESS.

"Confidence in promises lawfully made is the life-blood of trade and commerce. It is the vital air labor breathes. It is the light which shines in the pathway of prosperity." — GARFIELD: *Chips from the White-House*, p. 443.

WHAT does the Travelling Law-School wish to study while beginning the ride from

New York to Philadelphia? How to succeed in business?"

"Yes; and how to make good bargains."

Excellent. There are probably a thousand books explaining the law about bargains and business; and lawyers who study them become very much interested in the various rules. But it is quite possible for young persons to begin business, and to prosper in it, without having learned much about the law. The chief object of having laws is to make people

who are not honest, industrious, faithful, sensible and courteous, behave somewhat as if they were so. Hence, whoever has these qualities naturally, and makes bargains, or does business with good people, will very seldom have any trouble about the law. Good qualities of character, and good friends and acquaintances, are a young person's best assurance of succeeding in bargains and business.

Some excellent business qualities are, however, quite opposite to each other. If one could choose his own traits, it would be a perplexing question as to some, which to choose.

Ingenuity or docility. The question is perplexing whether a young person beginning business will succeed best by doing exactly as he is told without asking questions—which is called docility—or by using ingenuity in making improvements.

A poor man once asked the rich Mr. Girard for work; and Mr. Girard said, "You see tem stone yondare?"

"Yes, sir," said the man.

"Vare well; you shall bring tem, and pile tem here."

The man worked till noon doing so, and then told Mr. Girard that the job was done, and asked what he should do next.

"Ah, ha! Oui! you shall go place tem stone where you got him."

Mr. Girard did not really care where the stones lay—he was only trying the workman.

At night the man reported that he had carried the stones all back; and Mr. Girard paid him a dollar. Next day the man had the same task given him—of moving the stones back and forth—and did it as before.

"Ah!" said Mr. Girard at night, "you shall be my man; you mind your own business and do it; you ask no questions." And the poor man thus obtained an excellent position.

Many employers wish their "hands" to do just as they are told. It is an excellent quality, if one is not stupid. A lad once went to learn shoemaking, and the master gave him some leather, and a knife and pattern, and told him to cut out pieces of the leather exactly like the pattern. Now the pattern had a hole in it cut for hanging it on a nail; and the poor boy, meaning to do just as he was told, cut a similar hole in all his pieces. This spoiled them, and the master dismissed him; which seems unjust. One needs, however, to use common sense even in obeying orders. And sometimes persons have succeeded wonderfully by ingenuity in doing better than they were told. When steam-engines were first invented, it was common to employ some one to open and shut a certain valve. A boy who was employed to do this took notice that a particular crank or lever in the machinery moved regularly just at the moment for opening the valve; and he contrived, with a piece of cord, to tie the handle of the valve to this moving part of the machinery, after which the engine itself opened and

shut the valve. When the employer saw this he was greatly pleased, for the contrivance led to a great improvement in the steam-engine.

Ingenuity like this is a natural gift. Those boys and girls who really have it are very fortunate. But unless one has remarkable ingenuity, doing exactly as he is told, or as he sees other people do, is the best. He then does not need much knowledge of law. An ingenious, reforming person needs more; for he may be breaking some law by his improvements, without knowing it. Also he needs to know the law about obtaining patents for his improvements when they are good.

Shrewdness or simplicity. A boy who lived near a mill observed that a long wooden pole in the machinery was wearing out. He knew, somehow, that it could not be replaced by a green tree; a seasoned stem would be needed whenever the old one broke. So he cut down a tree of the right size, hauled it to his father's dooryard, and let it lie there to dry and season. In about six months the mill-owner came rapping at the door.

"What will you take for that pole?" he asked.

"One hundred dollars," said the boy.

"A hundred dollars for that common pole?"

"Yes, sir; I saw your pole was wearing out, and I thought you would rather pay a good price than have the mill stopped while another was seasoning. So I got one ready for you." And the mill-owner found he had better pay the money.

This is an example of shrewdness. It is a natural gift, and persons who have it are very fortunate, provided they also have honesty. Years ago a boy advertised that to every person sending him twenty-five cents, he would mail a steel-plate portrait, fairly executed, of the famous president, Andrew Jackson. Whenever a letter with twenty-five cents came, he immediately forwarded a two-cent postage stamp! Of course people soon began to complain, and the post-office authorities stopped the fraud. This was a shrewd plan, for when the contriver was arrested for swindling, he could say, "I did exactly what I promised; I did not promise a large portrait, but only a fairly executed one." But it was dishonest shrewdness. One objection to shrewdness is, that often where it is not perhaps really dishonest, it seems dishonest to those who are not naturally shrewd. Plain people are apt to suspect and dislike shrewd ones. Whether the mill-owner would be willing to employ the boy who sold him the pole, in his mill, would depend on the boy's being moderate in the price he asked, and the man's being good-natured. Many a man would feel what is called "overreached," and would be angry, even if he paid the money. Still, honest shrewdness is an advantage. But young persons who have not that natural gift can succeed in bargains and business by cultivating simple, straightforward, distinct ways. Perhaps you cannot make yourself uncommonly shrewd, but you can learn to be simple, clear and frank in your dealings. A

youth who is candid in explaining what work he is willing to do; who says distinctly what wages he thinks he ought to have; who makes a memorandum of the bargain, or preserves the letters which were written about the business; who does as he promises; who keeps accurate accounts of what he earns and receives, and who saves part of his earnings on interest, is more likely to succeed than if he were remarkably shrewd but had not learned these things. He is not trying to get advantage over other people, but to help them, hence they are not suspicious or jealous of him, but are willing to help him. His plain common sense, and his frank, distinct way of explaining what he means, aid him to avoid misunderstandings; and when a dispute arises, it is easily settled without a law-suit. But a person gifted with shrewdness needs to study the law carefully to know just how far he may go in making his shrewd bargains.

Versatility or perseverance. By versatility is meant the gift which some people have of doing a great many kinds of work, and of changing their plans readily when circumstances change. A young man was once making his first speech in the House of Commons, but he was not a good speaker, and the members laughed at him and would not listen. At last he stopped, shouting, "I shall sit down now, but the time will come when you shall hear me." He then persisted in studying and practising, and became a very skilful orator in that very house, and was, at length, the famous Lord Beaconsfield.

Every one now properly praises his persistence.

Once when commerce had lately been opened with a certain hot country, a London merchant sent thither a cargo of warming-pans. Now warming-pans were useless in so warm a climate, and everybody laughed, — no one would buy. There was, however, a great deal of sugar-making there; and the merchant ordered his agent to take off the covers and advertise the warming-pans as sugar-ladles! They were just what were convenient for dipping the hot cane-juice out of the boilers, and they sold at a great profit. This was a very judicious change of plan. If the merchant had persisted in his warming-pan project he would have lost his money. To know when to persist and when to change is very difficult.

Some persons succeed in doing several kinds of business, and in making and performing a great variety of bargains, together. This versatility, however, is a rare gift. Most young persons will succeed best by adhering to one plan, steadily; making changes only when there are very strong reasons for doing so. Those who adopt this course will find that their business will run along smoothly without many law-suits. Persons gifted with versatility, whenever they start a new enterprise, should study new law corresponding to it.

If there were more time we would discuss whether it is best to be enterprising or prudent; to be liberal or economical; to be courteous or summary; and some other like riddles. But we must see what we pass on the way to Philadelphia.

WHAT TO DO ABOUT IT.

JESSIE K. "Will you tell me how to keep a little balcony on the northeast side of the house filled with flowers this summer; what to plant and when?" You will have to start plants in a warmer summer exposure, in boxes at south windows, or, better, depend on plants from the nurseries. Young, strong plants, not yet in bloom, are not expensive, and you can get a fine selection from Hovey's each month. Ivies grow well in partly shaded exposure like yours; a Virginia creeper will be the best screen you can have, with early pansies, violets and lily-of-the-valley to lead off, heliotrope, vinca, perpetual roses, mignonette and nigella through the season from successive sowings or cuttings. Plant pansies, mignonette, lavender and petunias at once in boxes, and again every two weeks till the middle of June, to have plants coming in bloom as fast as the first ones drop off. Carnations and verbenas will do well in your balcony in midsummer, when most plants are grateful for shade. Start tuberose bulbs, forget-me-not, ice-plants, thunborgia

and ferns in hanging-baskets with evergreen honeysuckle and madeira-vine in pots to hang in masses over the balustrade. Phlox, portulacca, tulips, balsams, geraniums, asters and gladiolus will not do well for your balcony, as they need more sun.

ELSIE AND KITTIE "wish to know how to amuse themselves when they are sick, and obliged to stay at home from school. They mean when they are not very sick." People who are sick, generally find interest enough in getting well; but it seems to me I have heard of being too sick to go to school, but well enough to go a-fishing, before. Sorting buttons, needles and pins, putting ribbon-boxes in order, winding yarn or thread on cards, braiding paper, making lamplighters, are easy work that does not tire the head or hands. Cutting patchwork or shav- ing-paper, fringing linen or silk that is coarse, pass away time, when painting, cross-stitch or sewing would make the head ache. Sticking pins in a cushion, or ravelling old stockings, takes up one's mind when not equal to much else.

V. L. Y. (1) "Can you tell me of any way to procure Mr. Dickens' or Sir Walter Scott's autograph?" Write to a first-class auctioneer or antiquarian bookstore to secure one for you at the best opportunity; or advertise in some literary journal. (2) "Why is not the volume of sound increased in proportion to the number of voices producing it? I have noticed that a chorus of two or three hundred seems to produce almost as much sound as one of five hundred." If it did, the building was faulty, and either too small for the larger number of singers, or did not convey sound as it ought. You might as well say that a five-hundred pound hammer made no more force than a two-hundred pound one. If a large chorus seems to make no more noise than one of half the size, it is because the ear does not measure sound justly. You can train your ear to judge more exactly.

MILDRED L. "What is the object in studying algebra? Is it ever of any real value? I asked my teacher, and she said it was to help us to understand arithmetic, but that did not satisfy me." Somebody else remembers very well asking the same question long ago, and being equally dissatisfied with the answer. Somebody found when older grown that the reason was one that a child really could not understand, and it was one of the cases where older people knew more about the use and object of things than he did. I can only tell you that algebra is the only way of finding out the value of unknown quantities by their relations to those which are known, and it is of the greatest use to train the mind, and also in finding out great secrets of nature's laws, which you can't understand for many years yet, but you may as well be efficient in its processes, to be ready when you want to use it. If you never need it in practice, it teaches you to think, to reason, to remember; and that is a great deal.

VIOLA M. M. "We are trying to find a name for a little sister. Some one told us to call her Wynona. We think it a very pretty name. Is it an Indian name or that of an historical character?" Wynona or Winona is an Indian name of a pretty lake near Madison, Wis., but Indian names are hardly appropriate for American babies. Your sister will be better pleased when she is old enough to know, if you give her some simple, pleasant name, neither uncommon nor romantic. Elizabeth, Harriet, Katherine, Margaret, Caroline, Lucy, Helen, Emily, Berenice, and such familiar names, are in far better taste than fine or eccentric ones.

FRANKIE. "How can I learn to work examples in commission when I have no one to help me and can't go to school?" Take the easiest examples first, learn the rule well, and work them over and over till you see into the process. I hope you will find help, however; but if you cannot, encourage yourself by thinking that many good scholars have had to toil over their difficulties alone, and such study strengthens the mind more than constant help.

BERTHA E. B. "Can you tell me how people got their surnames? It has always been a great puzzle to me." The surnames *grew*, as they were needed to distinguish persons. Rude nations used no second names, and primitive races had none till it was necessary, as property increased and rights were of more account, to classify them by families. First they were called by their father's name in addition to their own. John the son of Eric, and Max the son of Carl, or James the son of John, which in time became the surnames we know—Johnson, Carlson, Ericsson. Their families took the names of their callings, as Falconer, Woodman, Warder, Fletcher, which comes from Flesher, or butcher, or Butler, which means bottler, or one who has care of wine. All names have a meaning, and were given for some reason connected with the family or its business. The most curious way in which names were formed was by the tyrannical edict of Maria Theresa, who ordered every Jew in Austria to select a name for himself, forbidding any of them to take a name ever borne by any one else, but commanding them to choose names from animals, the earth, rivers and metals. Hence came the Wolffs, the Rosengartens, the Rothschilds, Schwartz, Fleischmann (meat-man) and other odd names, which really are no odder than our own if we knew their meaning.

CONSTANCE. "How can I keep little green lice off my plants in winter?" By washing the plants once or twice a week in warm soap-suds, placing the pots in a tub of water on washing-days, sponging the leaves off gently with a soft cloth or sponge, or throwing the water over them with a whisk-broom. Turn up the under side of the leaves and wash the insects off carefully. Also put the plants under a barrel, and smoke them with coarse tobacco-stems laid on a shovelful of coals for half an hour. Sprinkle the plant well afterward.

LILLIE P. H. (1) "A poor woman called at our house to-day. On the left hand she had only two fingers and a thumb; on her right hand all the fingers and the thumb were amputated at the middle joints. Can you tell me if there is any work she might be able to do?" Such an unfortunate person could best be employed at such work as delivering parcels for a laundry or a shop, or as a messenger. A vender's business would be the best, however, if some friends would fit up a basket for her with needles, tapes, and seamstress' "findings" of all sorts, taking care to select things of good quality, little novelties and attractive things not generally sold at the shops.

(2) "Will you tell me how to free rose-bushes from scale-bugs?" Mr. Vick, the florist, advises washing the plant in strong suds made from soft soap, going over leaves and stem with a soft brush very carefully, and then rinsing the plant with clear lukewarm water. It is easier to prevent scale and green fly by keeping the plant free from dust, well washed once a week, and sprinkled daily.

C. Y. F. R. U. COURSE.

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WIDE AWAKE.



BOSTON:
D. LOTHROP & COMPANY, PUBLISHERS,
FRANKLIN ST., CORNER OF HAWLEY.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

X.—THE BARBARIAN'S OVERTHROW.

BY MRS. ROSE HAWTHORNE LATHROP.

ATTILA had received a summons, as he sat in his wooden village in Hungary, from Genseric, the Vandal of Africa, to join him, like a good fellow, in a war with the Visigoths, the daughter of whose king Genseric had cruelly treated; and the Vandal knew he should be duly punished if he waited for the furious father to attack him. The king of the Huns, a vast combination of wild tribes, had already so many reasons for marching upon Gaul, and Italy, and Greece, on account of snubs received from the Romans who were established in these three countries, that Genseric's request for help seemed like the very last step up the mountain; and Attila gave orders that his hordes should spring to arms.

Now the Romans and the Visigoths were Christians, and the Huns and the Vandals were heathens. So, above the hates and ambitions of the two opposing armies which were to meet in the approaching battle, were the invisible but important combatants, Christianity and Heathenism, each fighting for the dominion of the world.

As a first step, Attila sent a demand to Rome for the hand in marriage of Honoria, a beautiful princess of great majesty. The king of the Huns knew he would never get a Christian of such standing to wife; but he delighted in scoffing at the Romans, whom he feared no more than a parcel of plump sheep stripped of their wool by the thorns of the hedgerows as they snip clover.

"Honoria or war!" said Attila.

And the Romans, with the General Aëtius at their head, answered, "War, miserable Hun!"

Now the Visigoths were on the point of war with the Romans when Genseric sent back the Gothic princess to her father, deprived of her nose and ears for supposed treachery. It was not a nice time to fight Genseric, thought Theodoric, the king of the Visigoths;

and he put on — being a good Christian — sackcloth and ashes as an expression of his dependence upon the Deity, whose counsel he hoped to obtain in this dilemma. Aëtius bore down upon him with the Roman army and its allies (the latter made up of long-conquered members of the tribes of Attila's people and other folk), and the first thing Theodoric knew, there was the enemy just before him! Theodoric no doubt peeped through the opening of his tent door, with the ashes on his gray head, for he was very old.

"Pshaw!" cried Aëtius, rosy and sparkling with exercise, and a sense of humor; "I've given up chastising you for taking Roman room in Gaul, Theodoric, because Attila, our common foe, is at hand. Knock off your ashes, sheathe your sword in friendship, as I do, and call your Goths to this new business."

But Theodoric only shook his wise old head, and withdrew into his tent, and the Romans were obliged to hunt up a very sagacious person, by name Avitus, to come and talk reason into the pious ears of the Visigoth. He was really brave, as an old king should be, but he preferred to await Attila's possible attack upon his provinces, and run the chance of sparing his handsome men — tall, blue-eyed and fair-haired — and, moreover, his two noble sons, Torismond and Theodoric, whose royal blood entitled them to the long flowing locks of Gothic princes. However, Avitus drew so well before the mind of the old king the picture of Attila and his Huns rampant over Gaul, and even Italy, unless every king bestirred himself to thwart the barbarian; and the army of the Goths was kindled to such anger by being reminded of past insults in the old days when Huns meanly stole the wives and children of their ancestors without coming to open war; and the Romans argued so well that it was the duty of every Christian to defend the holy churches from destruction by the heathen, — that each Visigoth's blood was hotly stirred, and Theodoric himself hurried to crush Attila before he had stepped

with his haughty, lion-like tread upon too many cities in Gaul.

It was in A. D. 451 that Attila, proceeding westward to the Hercynian forest, crossed the Rhine on rafts made of its timber, and fiercely rolled his eyes (a way he had) at the tempting gardens of Gaul. Everything from that moment bowed before the cavalry of the Huns or Scythians, who were a little less terrible as admitted conquerors than as resisted foes; but during a war, when their blood was once up, they were horrid, however you might take them. Attila was called a generous man, leaning towards mercy; but he lived in an age when even the Christian Romans were often wicked; and, not long before, even priests could sacrifice human victims in the hope of

bishop sent him in trust and hope; and as he looked he saw a stir as of dust raised by a hurricane. "Gaze well and truly!" exclaimed the holy protector of Orleans. Ah! now the messenger sprang back once more to the bishop, and, glancing down upon the prostrate praying people around him, cried, "The dust grows to an army!" Anianus, too, cried out, "It is the aid of God!" and through the air on every side rose from the still prostrate people a deep sigh, "The aid of God!" As Attila's warriors were in the act of mounting the breaches they had made, the spears of the united armies of Aëtius and Theodoric, thrilling in the daylight, approached.

Attila, being a sagacious leader, perceived the danger of defeat in the midst of Gaul, and he there-



TORISMOND PROCLAIMED KING OF THE VISIGOTHS.

saving a city; so he and his tribes were guilty of dreadful massacres, and recalled to people's minds the military towers which aforetime the Huns had constructed out of the skulls of seventy thousand enemies.

But when Attila arrived before the walls of Orleans he received a check. Bishop Anianus of Orleans encouraged the citizens to resist the besiegers, to pray, and to trust to the deliverance which God might send through Aëtius. He placed a messenger by the wall to look out upon the horizon, sure that the friendly army would appear. Twice the sentinel sprang to the bishop's side, pale and eager-eyed with the appalling information that the horizon was clear and immovable as the rim of a shield. A third time the

fore commanded his savage forces to retreat in haste across the neighboring Seine. Beyond, in the direction of Rheims, the plains of Chalons promised a smooth field for his undulating cavalry, the pride of the Huns. The Romans followed, and the far-reaching fields of Chalons were filled with surging multitudes of men. The Huns quailed and held back. Bitter was the wide-ruling Attila's taste of life for the few moments while he sought to gather every power within him to inspire his host. He was unused to defeat. When first made king he had ridden with his brother, Bleda, proudly into the Eastern Empire of the Romans, and demanded large tributes and covenants without so much as deigning to dismount from his living throne. The gorgeous

Romans had then given way to his lordliness, though his steed wore no gayly sparkling trappings like those around him, and though Attila arrayed himself in simple garments of one color, in contrast to the handsome gear of his own allies. His small, deep-set eyes, we are told, were so full of lustre that it was difficult to meet them; which is often the case with the eyes of greatly gifted men.

Suddenly the brows of Attila's subject-kings lift themselves from their moody darkness, and they and all the Scythians, clutching their sturdy cross-bows, strike their foreheads with the right hand, and then twang their bowstrings in martial rhythm. The sound is that of the wind before a storm which is coming to sweep itself over a Scythian desert. Attila's savage lip moves with pride and returning hope, and his eyes flame like lightning. A young king, or a sooth-sayer perhaps, speaks while the bowstrings gradually sink to slumber again, telling of the sacred sword of the Hunnish God of Battle, which was discovered in a field where it had long been buried, awaiting the young Attila's coming to be the head of his people; and it was told again how Attila possessed the magic stone GEZI, from which could come, if it were held in the king's hand, tempests of such power that foes would be swept away.

The Goths and Romans meantime were securing advantageous positions from which to attack the Huns, young Torismond seizing the only eminence of importance on the plains. The armies of the Christians were more resplendent than that of the Barbarian; chariots were doubtless drawn up in princely lines and massive awfulness; and archers bounded hither and thither, ready to band themselves together for the onslaught, while on parts of the field fighting had continued uninterruptedly all the while. It was July, and the sun had rolled up the heavens betimes to witness the tremendous scene from the best point of view. Many a jewelled shield and belt and horse's head-gear glittered over the country meads in the sunbeams, and at last Huns and Romans mingled in an enormous tussle, in which hundreds of thousands of warriors fell. But the

barbarians, the heathen Huns were overcome.

Old Theodoric was nobly dead, killed while encouraging his forces; and at the end of the day, when the Goths drew up into a hot, rejoicing, triumphant mass, they clashed their swords upon their shields, lightly tossed upon the raised bucklers of a group of Visigoths, Torismond, the young and brave hero, and proclaimed him the successor of his father. The graceful prince stood high in air upon his breathing pedestal of warriors with uplifted arms, and the setting sun touched his figure with gold, and the golden circlet upon his long golden hair with light, and filled his blue eyes with sparks of fire. Christianity was stronger from that hour.

Having retreated behind the wagons of their camp, the Huns pressed together exhausted. But in order to be prepared in kingly fashion for the worst, that is, a further attack from the enemy, the imperious Attila caused to be prepared, of saddles and wagons, a massive funeral pile, whereon he and his family and the accumulated spoils of his campaign were to be consumed, rather than suffer capture. No doubt he watched the building of the pyre, sitting like a disappointed statue among those of his subject-kings who were left to him; while by his orders the Hunnish music sounded continual defiance to the enemy, and all sallies from outside the camp were met with showers of arrows.

At fall of night the roaring Gothic trumpet ceased to ring around the plains; the tramping steeds of the Romans were still; Attila marvelled at the vast silence on every side. Though defeated, he saw himself master of the battle-field by the light of the stars; for the Christian host had left him alone with his heathen sword, and a warning never to return to Gaul. The Franks, keeping watch at a safe distance, kindled innumerable fires at night in imitation of larger forces; and Attila, puzzled by the clever tactics of Aëtius, gathered up his broken army and faced home.

SUPPLEMENTARY READING. — There is an account of the battle of Chalons in White's "Eighteen Christian Centuries," and in Creasy's "Fifteen Decisive Battles of the World." Gibbon's account of the battle in his "Decline and Fall of the Roman Empire" is noted as one of the most splendid pictures of that remarkable work.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

IX.

THE MISCHIEVOUS MINX.

THIS little beast has about as bad a reputation as Reynard has; for bad Reynard certainly

is, though, as you know, I tried to say a good word for him. Perhaps if I had waited a week longer, I should not have done so; for within that time, at an out-of-the-way farm-house where I happened to be, one of the family came in with the news that "that fox has taken another of the roosters. That makes

three; right out of the Canada-plum tree too; and before it was fairly dark. I never before knew that a fox could climb trees. I wonder where he can't go! *Door-yard* folks! I should think as much!"

The next thing I heard, was of a back-country man telling about the individual under present consideration; how "my wife saw one down by the barn, and she hollered to me, and I got my gun and shot him. They get afoul of chickens or poultry, and get to killin' of them, and a suckin' of their blood. They are something like a weasel. 'Tis a pity such a *harnsum* little cretur should be so mischeeve-ous."

A minx is a mink. But why he should have two names so near alike is a mystery to me. It is puzzling, too, to know how we ought to speak of two or more.



"THEY ARE PESTS!"

Is the plural *minxes*? And what are the young ones? are they *minikins*? The "little cretur" has several other names, one of which is "minx-otter," and one, which I think Audubon used, is "vison-otter." Now if you are studying zoology, pray do look up *vison* for yourself. You will have a search before you; so vague, and the word will so elude you, that you will be more than once reminded of that famous rhymed chronicle of absurd adventures found in "Hunting the Snark," which all the young friends of "Alice in Wonderland" must have laughed over. *Vison, vison*. You will hunt it in dictionaries; you will hunt it in cyclopædias; you will hunt it in Latin; you will hunt it in Greek. But don't give up till you find why the

great naturalist distinguished the mink by this sub-name.

When mink furs were so fashionable, it was thought quite fine to speak of them as "sables;" but that word rightfully belongs to some of his distant kinsmen. There is a large family of them, who are cousins of the first, second, third or fourth degree. The most distinguished is the ermine, and the one of least account must be the weasel, for is he not scientifically labelled *Vulgaris*? I think you will find that the general name of the race is *Mustela*; just as Plantagenet and Tudor and Guelph stand for certain royal lines.

In those days, when the mink found himself an aristocrat (those were "war-times"), his fur was so valuable that a single skin would bring six dollars; and one skin did not go far towards making a large collar, or one of the muffs of generous dimensions which ladies then used. Then the mink race was in danger of becoming extinct; and one gentleman, thinking that money might be made in that way, undertook to have a "minkery" on his premises: he had a nice place fitted up, and brought up the little ones like kittens, till the time when their fur was marketable, and then had them killed. And the boys who lived near water got out their traps and baited them with sweet apples — all these wild animals seem to be fond of sweet apples. One person tried a very ingenious plan by which he made the minks come to him. Knowing how fond they are of fish, he bored some holes in a box, and placed it in the spring near his house, and put some shiners in it. These the minks soon discovered, and as fast as one lot of shiners were eaten, he would put in more, and so on, until the minks came as a regular thing, after which he set a trap, and caught enough that season to supply himself with spending-money.

Now that the style has changed, and a skin is worth only about a dollar, the minks are allowed to live. And now another gentleman writes to the newspapers about them, that "they are pests," that they have so increased since their fur became cheap that there must be something done about it, for they are devouring the trout at such a rate that in some of the smaller ponds not one is left. Therefore, for the sake of the anglers, will not the ladies, he asks, begin once more to wear mink furs, and so make them fashionable, and consequently so profitable that people will begin to kill them off again? Perhaps if the minks could be consulted they would object, and prefer to continue unfashionable.

The cyclopædias will tell you that the mink is web-footed; but do not think that his feet are like a duck's, although he may sometimes be seen gallantly swimming, with head up, as much at home in the water as if he was on *terra firma*. In fact, one would think his short legs hardly so good for running as his amphibious sort of feet are for swimming. He is a wandering creature at best, leading a solitary life a good part of the year, roving off by himself. If you

happen to live near the water you have some chance of making his acquaintance, and will find him a very petable thing. I have known of two that were caught and tamed, and became as domestic as kittens.

One of them was accidentally discovered by a gentleman who was enjoying a May morning by the side of a brook which ran through his door-yard. He heard a queer little plaintive cry almost under his feet, and taking up a spear such as is used in killing "suckers" — all boys know about "spearing suckers" in the spring — he thrust it at random into the bank; and out came a young mink, minus the tip of his tail, which the spear had cut off. This poor waif was apparently the only one left of a very young family, and his home had probably been broken up by some laborers who had been cutting a channel just below.

He was about the size of a common house-rat; and his hairy covering did not look much like the lovely brown fur of later days. He was cared for, fed with milk, and, as he grew older, with meat and fish. Of the latter he was very fond, and would go down to the brook and fish there alone by the hour, always returning when whistled for — you know men and boys have the faculty of teaching almost any creature to obey that signal. Visitors always asked to see "the tame mink," and at the accustomed call he could be perceived hurrying up the bank and making all speed in their direction; but before they knew it, he was nowhere in sight. By some mysterious feat the droll little thing had suddenly made himself invisible; and all the time the good man would be looking *so* roguish over the mystification of the guests. He was used to the tactics of this curious pet, and knew just where he would presently pop into sight. It was a very absurd proceeding, but the mink chose that way — to run up his master's leg, inside of the pantaloons, up inside of the vest, and then peep out, to the astonishment of the beholders, just under his chin, and there snuggle down — the sly-boots! — purring like a kitten.

The other was picked up in the field when but a few days old, and passed over to the cat for her supper; but pussy developed the unexpected by taking the foundling carefully by the neck and stowing it away in the midst of her family of new-born kittens.

Before long it was found that she was neglecting them, and finally starving them, for the sake of the new-comer, which she grew jealously fond of. As for the mink, he was full of antics, and played with her in a kittenish way, though often savagely biting his foster-mother. He soon proved to have such a ravenous appetite — after the nature of his kind — that she had a hard time of it to find food enough. She hunted out all the rats and mice, and when the supply was exhausted, began on the chickens. That the family could not put up with; and they sold the expensive pet, declaring that a butcher might be able to support a mink, but they could not afford to.

The purchaser was delighted with his new acquisition; for the mink had become such a beauty, being nearly grown, and his fur of the glossiest brown, that he was much admired, and his tricks were very cunning and amusing. He, too, was fond of stowing himself away somewhere about his master's clothing, especially when making a call on some of the neighbors, and then entertain all present by crawling out of his sleeve, or from under his coat-collar. At one house the mink hid under the tall clock, and at every attempt of the family to get him out, he would growl and strike viciously. Nobody but his master would he allow to handle him.

Everything went well for some time, and he seemed perfectly satisfied with the food that was provided for him. You would not have thought that he had ever so much as suspected that chickens were good to eat, so innocently did he go about. Meanwhile, three or four hens had been doing their utmost to advance the growth of as many fine broods, which were believed to be safe from harm. But it soon began to be noticed that one after another of these Dame Partlets wore an anxious and frightened air, and that the ranks of their downy followers were thinning fast.

Things looked dark for the mink. Suspicion pointed to him, and his movements were watched; and when one night it was reported that he had killed nine chickens within as many hours, there was a verdict rendered without jury. The summing up of the whole matter was brief, but to the point: caught in the act; found guilty; condemned to be shot.

WAYS TO DO THINGS.

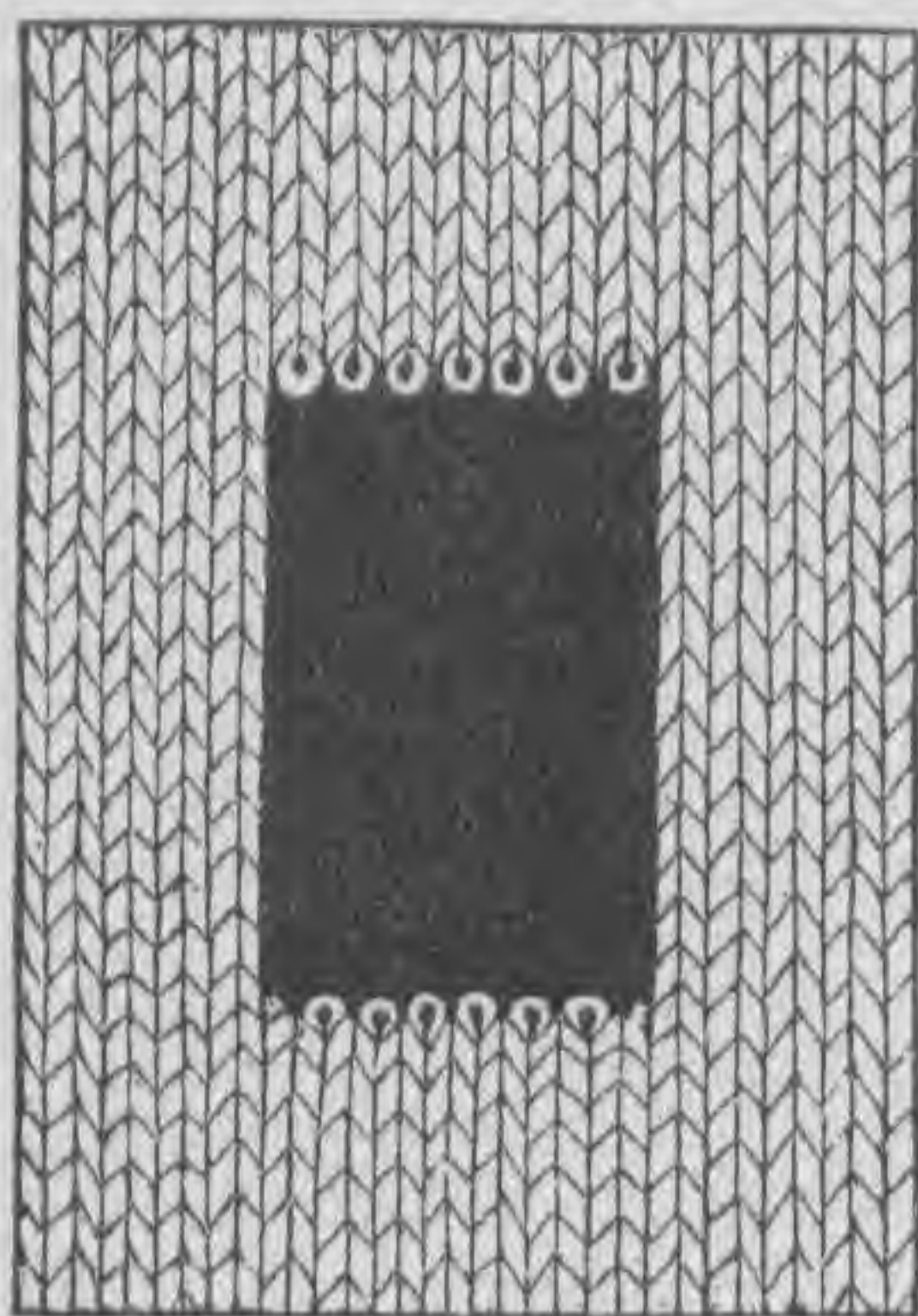
IX.—THINGS GENERALLY LEFT OUT.

BY SUSAN POWER.

SEEMS to me," said Henriette as she was picking up things about the room while I sat at my desk

waiting for the right idea, "if I were you I'd tell those girls some things they want to know more than embroidery and fancy work. Take the girls and women as they come, half of them don't know how to mend a frock or a stocking, or darn a carpet, if it was the last one they had — not as such things should be done."

"Thank you, Henriette," I said; "I shall be mistaken if some of those girls don't say thank you, too, before this chapter is over." For there is too much truth in what Henriette says, and a good many women



READY TO MEND.

are lamenting in middle age that they were never taught the best and the easiest way of doing these homely things.

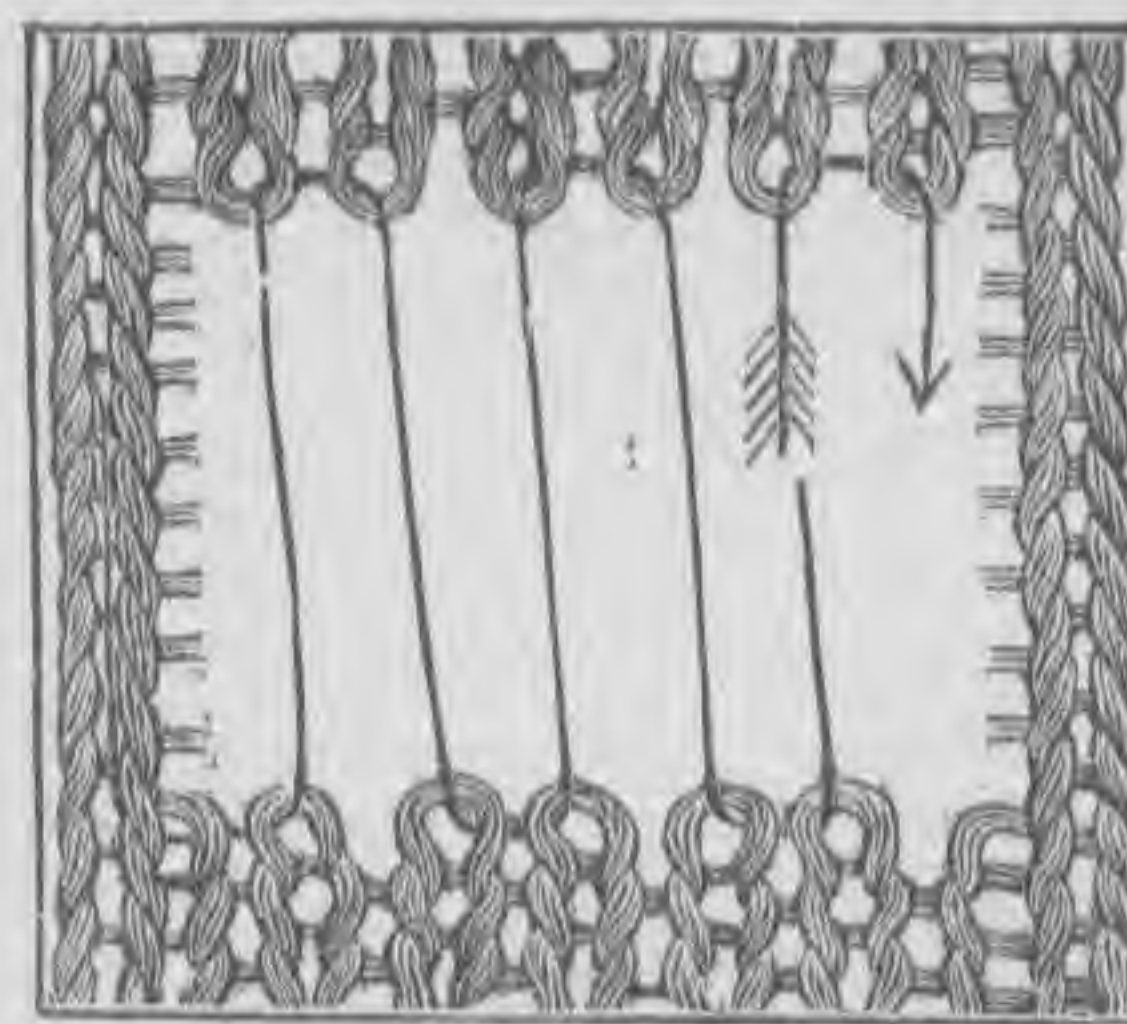
I don't know but that princesses know more about mending and caring for their dress than American girls, for I remember when I was a girl hearing letters read from a bright girl, daughter of our minister to the Hague, in which she told of her surprise after she became acquainted at finding the maids of honor

carefully ripping the trimming off one discarded dress for another new one. It seemed so unaccountable that a court lady should ever think of such a small matter as saving or using a second-hand dress-trimming. But queens and ladies of the nobility are far more careful about their wardrobes than you or I think it necessary to be, for every great lady has her books of inventory where all her articles of dress are set down, with the date of making, altering and repairing, the sets of underlinen, the stockings of thread and silk, the shoes, handkerchiefs, gloves and slippers, the day and evening dresses and robes of ceremony; and it is the business of the mistress of the robes to see that care is taken to have these things repaired and replaced by proper persons. Among the royal accounts, you will find items for repairing smocks, night-gear and petticoats for the queen's use from the earliest times. Even Queen Elizabeth with her three thousand dresses in her wardrobe had a woman who was clever with the needle, to repair her linen, which was curiously made, as a lady tells me who has seen the articles preserved in the British Museum, with the seams joined by a lace stitch, not with plain sewing as to-day. Her Majesty was too busy with cares of State to do such things herself, but she could have done it very well, for she was a skilled needlewoman in her youth, and it is recorded that she worked a full set of infant's clothing for the prince, her little baby brother, when she was hardly in her teens. Coming down to our own day, the Austrian and Hungarian ladies, the proudest nobility in the world, are taught all sorts of housewifely accomplishments, and have learned plain sewing, knitting and darning before our girls are out of the kindergartens.

The Spanish ladies of rank are taught exquisite needlework, which includes plain work, just as learning to write includes a knowledge of pot-hooks and hangers. Why not? These ladies are thoroughbred,

and that word you all worship so much nowadays, means that a woman is taught and brought up to do everything that a woman is expected to know and do in the world, and that she can do all these things well. The best of them are trained as the Prince of Wales directs his daughters should be, taught, as if they were to make their living by going out as governesses. Their mother, the lovely Princess Alexandra, as a girl in her father's home at Copenhagen, trimmed her own bonnets and made her own dresses and jackets with her sisters, and you may be sure she has not allowed her daughters to neglect such an essential part of a woman's education.

It is not generally known that with her great taste in dress the Empress Eugénie was also very skilful with her own fingers, and could trim a bonnet, or adjust the drapery of a dress with a touch which improved on the work of practised modistes. In the days of her flight, after Sedan, from Paris in disguise, when her friends hid her own exquisite little black bonnet which would betray her by its style, and brought a plain English trimmed one, with the instinct of innate taste she refused to put it on till her own fingers had taken off some of its heavy trimming and adjusted the rest with a Parisian touch. This was very likely as much to take her mind off distracting events as from the woman's instinct, which rejected anything pretentious and out of taste. It was like that sadder queen, Marie Antoinette, in the conciergerie knitting in the darkness with splinters of wood and ravellings of wool to relieve her mind a few moments from the griefs which sent it distraught. When you hear studious, artistic or fashionable young ladies say that this endless stitching makes them nervous or wastes their energies, or any such folly, remember that women with more brains, cares and experiences than they will ever know have found in the needle and feminine arts a rest from trouble of mind and soothing for over-wrought nerves. Make friends with your needles before you actually need them. A gentlewoman, a thoroughbred woman, rarely dislikes a needle. I am sure she never dislikes mending. People

FOUNDATION FOR WEB-STITCH
DARN.

are very short-sighted who shrink from the task of setting a garment to rights. If they thought and saw that they were to bring order and seamliness out of what is ragged and forlorn, they would regard the end more than the trouble. I don't wonder women hate mending, the way they do it, with irregular hemming, and a botch instead of a neat darn or a trim

patch. A bright actress once said that she would rather see a hole than a darn, for a hole might be an accident, but a darn was premeditated ugliness. But that is one of the smart speeches which have more sound

than sense. Probably her darns answered the description completely; but a darn properly made is anything but a blemish; rather it is a touch of care and clever handiwork which puts one on intimate terms with a garment and increases its value.

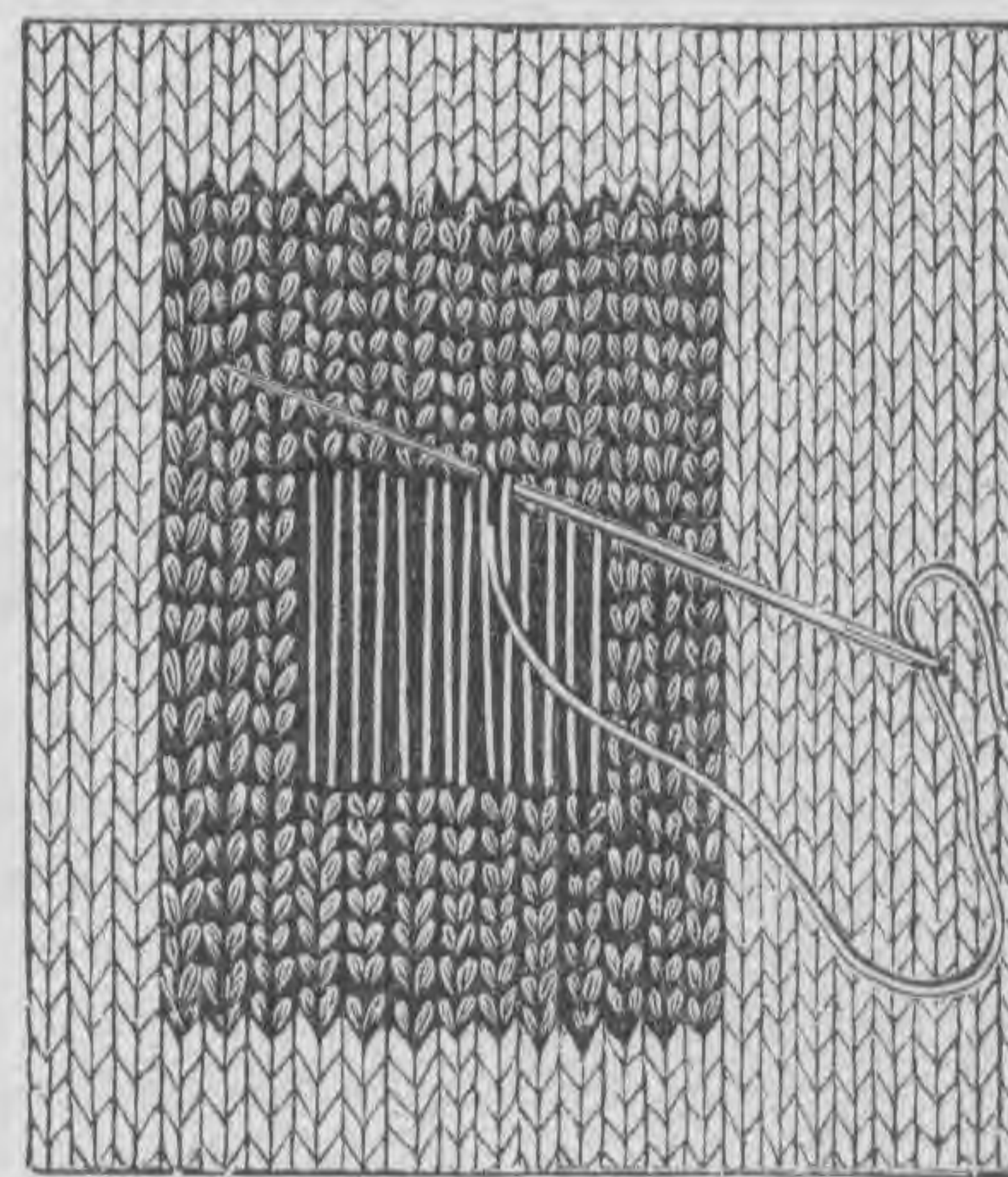
Will you please give me that square Indian basket of red, green and buff splints, fragrant with sweet-grass, which holds darning-cottons and the week's mending? It reconciles one to dull work to have nice conveniences for doing it, and the gayest of all your baskets may as well be given up to the mending. The shallow-grass "frails" from South Carolina are just right for darning, as they hold work well, and I wish it was not quite so rare to find them at the North. Take this pair of boy's stockings worn at heels and knees alike, as a hopeful subject for the mending-lesson. The legs have been caught on briars climbing into Johnny Martin's cedar-pasture, and we want those places mended not to show; but, alas! darning-cotton does not come in all the shades of hosiery, and I have hunted town for that particular mixed heather brown in vain. Fortunately these are very long stockings, and we can ravel a few needlefuls from the top, carefully taking up the stitches and buttonholing them over with this common brown merino. Dampen the ravellings and wind them up tight on a card to dry and straighten out. You see at each hole the cotton is worn thin for half an inch or more, and, mend ever so nicely, the work will be worn and torn away the next time it is put on. This we must strengthen so that, let the stocking wear where it will, the holes won't come in that place again. Take this large hole on the ball of the foot for the next work. In sewing, the rule is to use short needlefuls of cotton to prevent kinking and knots in the thread; but in darning, use as long ones as the arm can carry, a yard after doubling. Choose a darning-needle slender as it can be and carry the cotton easily, for a coarse needle spoils nice mending. Cut away the ragged edges of the hole, stretch the stocking on your hand as it would naturally stretch on the foot, and take the first stitch through two threads of the firm web at the lower corner of the hole, drawing the darning-thread from side to side of the sole as you first work. Always draw your threads first in the way the strain on the part comes in wearing. On the foot, the stocking stretches round, on the leg it stretches lengthwise, and you work threads in the long way first, then weave from side to side, which makes a smooth, elastic darn, instead of a drawn, lumpy one. Do not make a knot on the end of the yarn, but leave the ends out half an inch to prevent its drawing through. When you take the next stitch from the other side do not draw the yarn quite through at the end, but leave a little loop, which allows for shrinkage in washing. Run long stitches through the thin part of the web at the edges, lay the threads straight in crossing, and as close as you can. When you have worked across the hole, begin to weave threads across, under

the first thread, over the second, under third and over fourth, and so down to the end, keeping the work well stretched on your hand, just as ladies hold their embroidery. In doing this homely work, you are learning the first stitch of guipure lace, which is largely filled with this same in-and-out darning. Work close up to the edges of the hole, and finish when you are at the end of a thread or of the work, by running the needle into the web two or three stitches, and cutting the yarn half an inch from the end, just as you would finish off embroidery.

By this time the ravellings are dry, and you may try a nicer kind of darning. Cut off the frayed edges of those torn places, use as small a needle as will carry your cotton, take up each loop and carry a thread across to the loop opposite to hold it firm, and then work chain-stitches on these threads, just the size of those in which the stocking is woven, joining them at the side and upper end. It is a nice bit of work, and slow till you have learned it, but really quicker and so much better looking that it is worth the trouble, especially on nice stockings. The Flemish ladies, who are exquisitely nice at the needle, mend all their stockings in this way, and would think it very careless, if not slovenly, to mend anything

unless in the exact stitch in which it is woven. They darn a rent in cashmere in the same twill, or follow the seed-work of an armure cloth, or the pattern of a camel's-hair shawl, so that you would not know it had been mended. In our large cities you will find women who can imitate any fabric with the needle, and will mend a lace flounce, or a hole in an India shawl of the finest kind, or a moth-hole in a man's coat, so skilfully that the work defies inspection.

That hole in the heel remains; but we are not going to spend an hour darning it, to be worn out the next time that dreadful child puts the stocking on. Cut out the heel entirely, ravel out the web till you have a row of loops all straight and clear at the top; take these up on a pair of fine knitting-needles and knit the heel anew, this time with firm, strong white cotton, if you have not the proper color to match, but knit it double so that it will last twice or thrice as long as it did at first. A good knitter will knit a heel in the time it takes to darn a large hole,



PROCEDURE WITH WEB-STITCH.

and the work is vastly easier. Make it larger than the old heel, to allow for shrinkage of the new cotton, and sew it in at the sides with buttonhole-stitches, and you will have a piece of work to last and look well, so that your boy will never complain of a bunch of thick darning which chafes and bruises his foot.

The holes in the knees may be knit the same way with ravellings or cotton of the same shade;

but they too must be knit double, and the sides well run for two inches each side. A good deal of work? Yes, of course it is work; but it takes less time than the weekly darning, and is more sightly, trim and creditable, besides giving twice the wear out of a pair of stockings in the end. And what is good for a boy's stout stocking, is just as good, and the process is the same, for silk or lisle hose worth five dollars a pair.

OLD OCEAN.

BY ERNEST INGERSOLL.

VIII.

THE MERCHANTS OF THE SEA.

THE history of shipping which you have read in an early article of this series will also answer as a history of early commerce. It began with the Egyptians, Phœnicians and Carthaginians, and was confined to the Mediterranean until quite modern times. Later, in the days of the Roman Empire, the trading-ships were as important to them as their soldiers; for nearly every free man was in the army, and the slaves made poor farmers. A large part of the grain, then, to supply the wants of the people had to be brought by water from Egypt, which was pretty sure to have "corn," as the Bible calls it, when the rest of the world was suffering from short crops. Large fleets of grain-ships, convoyed by armed vessels, were continually passing between the Nile and the Tiber, and so many were the risks they ran of wreck or capture, that the arrival of a flotilla with its precious freight of food was always a cause of rejoicing, at any rate among the poor people of the great city.

It was the needs of commerce which urged the explorations that marked the fifteenth and sixteenth centuries, for by this time Venice had her banks—the first in the world—and her exchange on the famous Rialto bridge; Genoa was in close rivalry; Spain was mining immense quantities of gold and silver in South America; and England was coming to the front as a maritime power. The trade with Cathay—as all India, China, and the Oriental Islands were called collectively—was chiefly by caravans across the Persian deserts, and Spain, England and Holland had small shares in it, since the only water-route known was through the Mediterranean and Red Seas, where, between the extortionate charges and stealings of the Arabs, who

carried the cargoes from vessel to vessel across the Isthmus of Suez, and the captures by Algerine pirates, there was little chance for profit left to the shippers.

To western Europe, then, Vasco de Gama's discovery of the route around the Cape of Good Hope was a long advantage, and England and Holland at least were quick to seize it. The great "East India Companies" of the Dutch and English were formed by a group of powerful merchants in London and in Amsterdam, who were given vast privileges by the government in respect to trading in the East. They equipped fleets of merchant and war vessels, established forts, carried on small wars along the Oriental coasts, and were really little kingdoms within kingdoms, because of their wide monopoly and enormous wealth. The history of the operations of these companies is full of curious interest. Their captains and supercargoes—as the men in charge of the cargo and business matters of a merchant-vessel are called—went into utterly unknown waters, and penetrated regions of land where Europeans had never been before. They brought home new facts, and specimens of human industry or natural products entirely novel. They thus enlarged the knowledge of Europe about the people and animals and plants and scenery of the East, and by taking possession of sea-ports and islands for the purposes of trade, added broad realms to their home kingdoms.

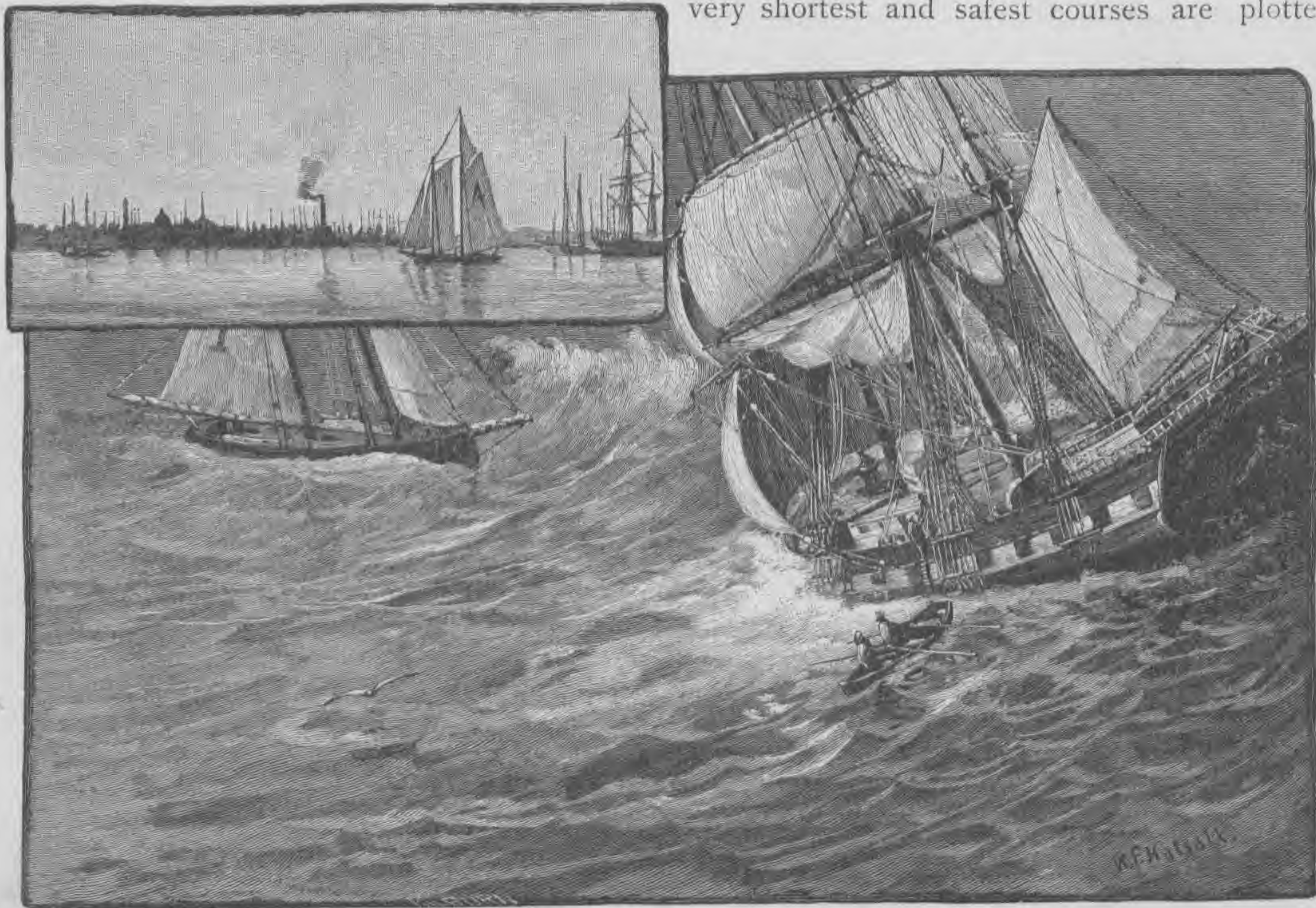
But those were slow and costly times—though full of a romance impossible now—compared with the present. Then a voyage around the world occupied three years, and to go from London to Calcutta and back took from New Year's to Christmas under the most favorable circumstances. Now our steamers make it in less than as many days as an East India-man would have required weeks. Another important change, too, has gradually come about. Formerly the vessels were owned almost entirely by the mer-

chants themselves, or by a company of them. They paid all her expenses, and put into her a cargo of their own wares. They would send to China, for instance, cotton goods, household furniture, hatchets, tools, cutlery and other hardware, farming implements and fancy goods of all sorts. In return the vessel would bring silks, tea and porcelain, which would go into the owners' warehouses and be sold in their own shops. The shipper and importer and merchant were all one.

Now this is changed. The importers and mer-

Nearly all the steamships are thus settled in their voyages, and depart and arrive with regularity once or twice a week, a fortnight, or a month. The merchant or broker, then, who wishes to ship his goods to any particular port, knows what vessel goes there regularly and when she will sail; or if there is more than one line, he chooses between them carefully as to safety, speed and cheapness.

All this rivalry and effort in commerce (with generous aid from scientific men and governments) have taught navigators much about the ocean, its winds, currents, depths and shallows, coasts and harbors. The very shortest and safest courses are plotted upon



TAKING PILOT IN ROUGH WEATHER; AND BOSTON HARBOR.

chants of London, Paris and New York are not often those who own vessels and bring their own goods. Instead of this they have agents who live permanently in each of the foreign ports where they buy the goods they want, and they hire vessels to bring them home. This has brought out a new department of sea-labor, unknown, as a class, a century ago — the business of carrying goods which the owners of the vessel have no property in. In Boston, New York, San Francisco, and all other sea-board cities of this and other countries, the great majority of the vessels are owned, not by the merchants of the city, but by "transportation companies," who agree to carry cargoes at a certain rate.

In most cases these vessels run back and forth only between certain ports, and so constitute "lines," such as those between Baltimore and Rio de Janeiro.

charts to every part of the world, and all the ships passing to and fro between the greatest ports sail on nearly the same courses, so that we have come to know these well-followed through invisible tracks as "ocean highways." A short sketch of some of these tracks will show you how they run.

The steamship lines between New York and Great Britain do not steer straight across the Atlantic, but on their way to this country keep well to the northward so as to get to the west of the Gulf Stream, and into the favorable current flowing south from Baffin's Bay; then they skirt Newfoundland, Nova Scotia and Cape Cod. Going over, however, the steamers (and sailing-vessels too) keep much further south, and work along with the Gulf Stream as far as they can. From Europe to South America, or through the Straits of Magellan on their way to the South Sea

islands or Australia (though this route is not often taken), or to the Pacific coast of the Americas, vessels keep close down the African coast, and then steer straight ahead from Guinea to Brazil and on down the coast. (Put a map before you and you will understand these courses better.) Sailing-vessels to Europe or the United States from Cape Horn, however, would swing far out into the South Atlantic to avoid heading against the southward coast-current and to get the benefit of the southeast trade-wind and the equatorial currents. From New York to the Cape of Good Hope or back, the track is nearly straight.

In the Pacific, the steamer route in summer from San Francisco might be five thousand miles as straight as a parallel of latitude, only that here, as also between New York and Liverpool, navigators adopt what is called "great-circle sailing." This consists in not heading straight for the port desired, but going to it in a curve, by which distance is saved, because the rotundity of the globe is avoided.

Sailing-vessels, however, curve so far north in coming from Japan or China to America, and so far to the south going out from San Francisco, in order to get into prevailing winds and currents favorable to them, that in mid-ocean it is about one thousand miles north and south between ships outward bound and those coming home. Between California and Honolulu a steamer takes a bee-line, but sailing-vessels find it best to make detours. In summer this amounts to steering straight northward until under latitude forty degrees, before turning eastward, making more than a right angle to go around.

I have said that the finding of a sea-route to the East around the Cape of Good Hope was a great boon to Western Europe and advanced commerce. It remained so until within the last fifty years. Lately, the Corsairs being out of the way, and safety guaranteed in Egypt, merchants and sailors both began to wish they had a shorter route between England and India. Then, with immense labor and sacrifice, the canal was cut across the Isthmus of Suez, and commerce returned to its ancient channel through the Red Sea, saving thousands of miles of weary distance and much time in each voyage.

I fear you have voted these details dull; but if you will follow them out on an atlas map which marks the directions of the trade-winds and the ocean currents, you will gather a great deal of interest from the suggestions and information you will get.

You can by no means, however, rank all sea-faring men as either in the naval or the merchant service. There are other classes of industries carried on in vessels, the fishing, for instance, which employs thousands of men in the United States, and an equally large proportion of the citizens of other maritime nations. Then there are the pilots, the yachtsmen, the whalers and sealers, the coast-guard, the life-saving and lighthouse service, the wreckers, oystermen, and others who get their living along the coast; besides the ship-builders, riggers, yard-labor-

ers and iron-workers on shore, the lightermen, 'long-shoremen and warehouse hands, the brokers and agents, supercargoes and clerks, whose daily bread all comes directly from being busy with salt-water affairs. Add these all together, and you will find a surprisingly large number of men and families thus supported.

For the first-mentioned of these classes, pilots, space is left me for a few words in this article. A pilot is a man who has made himself thoroughly acquainted with certain waters where navigation is dangerous, and who directs vessels in safety through those bad places. A ship-captain may understand perfectly the proper course from one continent to another and how to handle his vessel in the open sea, but he is not expected to know every rock and sand-bar crouching under the treacherous waves, and all the twistings and obstructions of the narrow entrance into a foreign harbor. Indeed, the naval regulations will not permit captains to act, though they may *think* they know the channel, since if an accident happens when there is no pilot on board, the insurance money will not be paid.

Pilots, then, are important men, and they know it so well that they charge very high prices for their services (generally rated according to the draft of the vessel), and admit few young men to their ranks to be trained.

Their method of work is very exciting. A dozen or so together will form the crew of a trim, staunch schooner, provisioned for a fortnight or more, which can outsail anything but a racing yacht, and is built to ride safely through the highest seas.

But these fine schooners and the brave men they carry are rarely in port. Their time is spent far in the offing of the harbor, cruising back and forth in wait for incoming ships, and the New York pilots often go two and three hundred miles out to sea. There are other pilot-boats waiting also, and the lookout at the reeling mast-head must keep the very keenest watch upon the horizon. Suddenly he catches sight of a white speck which his practised eye tells him is a ship's top-gallants, or a blur upon the sky that advertises a steamer's approach. The schooner's head is instantly turned toward it, and all the canvas is crowded on that she will bear, for away off at the right a second pilot boat, hull down, is also seen to be aiming at the same prize, and trying hard to win. The man whose turn it is to go on duty, hurries below and packs the little valise which holds the few things he wants to take home, and the crew's letters; if it is a steamer which is lying there with slowly turning wheels and signals flying, he shaves himself and puts on a clean white shirt; but a common sailing-vessel is not so honored.

The storm may be howling in the full force of winter's fury, and the waves "running mountains high," as we say, but the pilot must get aboard by some means. It takes rough weather to make it

impossible for his mates to launch their yawl and row him to where he can clamber up the stranger's side with the aid of a friendly rope's-end. But often this is out of the question. Then a "whip" is rigged beyond the end of a lee-yard arm, carrying a rope drove through a snatch-block, and having a bowline at its end. The steamer slows her engines, or the ship heaves to, and the pilot-schooner, under perfect control, runs up under the lee of the big ship, as near as she dares in the gale. Then, just at the right instant, a man on the ship's yard hurls the rope, it is caught by the schooner, the pilot slips one leg through the bowline-noose, and a second afterward the schooner has swept on and he is being hoisted up to the yard-arm, but generally not in time to save himself a good ducking in the combing of some big roller.

Now the pilot is master—stands ahead of the captain even—and his orders are absolute law. He inspects the vessel to form his opinion of how she will behave, and then goes to the wheel or stands where best he can give his orders to the steersman and to the men in the fore-chains who are heaving the lead. He must never abandon his post, he must never lose his control of the ship, or make a mistake as to its position in respect to the lee-shore, or fail to be equal to every emergency. If it is too dark and foggy and stormy to see, he must feel; and if he cannot do this he must have the faculty of going right by intuition. To fail is to lose his reputation if not his life. This is what is expected of a pilot, and this is what they actually do in a hundred cases, the full details of any one of which would make a long and thrilling tale of adventurous fighting for life.

HEALTH AND STRENGTH PAPERS.

X.—KITTY'S CARD.

BY MARY E. ALLEN.

ONE bright morning, Miss Kitty again appeared with her mother and announced her readiness to begin.

"One thing you must promise," I said, "or I cannot take you. You must *come regularly*. For a month—perhaps three or four—I want you an hour every day; after that, four times a week will do, with what you can accomplish at home. Irregular work at home or in gymnasium does really more harm than good."

The mother, like many another before her, thought she should begin with a day or two days each week, until she became used to so much exercise.

I stepped to the pulley-weights. "Feel of my arm! See how a few strokes make the muscle swell. If I continue this for five minutes, at regular intervals, for an hour, to-morrow the muscle will ache and be lame. That is natural—I have stretched the fibres. They will try to recover their old position. If I let them accomplish it by resting long, when I begin again they will ache and be lame as at first. But if I do not allow any reaction, but the next day do the same work and a little more, the fibres become flexible and elastic, more and better blood is called into them, and they grow firm and strong, and what formerly tired seems easy. I notice that those who say the gymnasium does not benefit them, are those who come irregularly, and do not weather the first weariness. You must be prepared to see your daughter unusually tired the first week or two, but you must not be troubled. 'Tis the result of calling into vig-

orous action so many unused muscles. And the weariness will soon give place to exhilaration; while coming every day will save her from the natural reaction which follows unusual exertion."

While we were talking, Kitty had been getting into her costume, and now appeared in the hall ready for work. Her mother laughed at her a little. She had on a long, loose blouse, with flowing Turkish trowsers, confined just below the knee, and falling over pretty stockings, and light kid Oxford-ties with a very low heel, and tied with ribbons of the color of her suit. She said, what so many had said before her, "How funny I feel!" and I knew in a day or two she would say, what so many had also said before, "I wish I could wear it always!"

"Well, dear, have you read the enigma of the card?" I said.

"No. 'Tis worse than any illustrated rebus I ever got hold of."

Taking the card, I said: "Do you notice the broad blue line running round the hall? That is the 'running-track,' and thirty-nine laps—or times round—make a mile. Your first order is to run round five times, or about an eighth of a mile. That is to rouse the circulation and make you warm, for you are dressed thinly, as you should be, because I want you to perspire from exercise and not from over-dress. Perspiration from exercise is good for you, because it opens the pores and carries off the waste matter from the system; perspiration from too much clothing exhausts you. You always want to start a run with your lungs full of air, your head erect and well thrown back, the chest pressed forward, and the hips back. If you bend the arms at the elbow and double the hand into a fist, you

will run more easily. Let the arms move freely backward and forward as the body sways slightly from side to side. Now, one! two! three! off!"

After once round, I stopped her: "You are not *running*, you are *leaping*. You hold yourself wrong. You keep your knees stiff and stand erect. Your body should incline forward from the toes, and you should bend the knee well, giving an easy swing to the leg, and strike the floor lightly with the sole of the foot, not touching the heel."

I was in gymnastic dress myself, of course, and I ran over the track to show her how.

"You get the exercise, which is the main point just now; but we will have for our aim *perfect running*. Men laugh at girls and women when they run, and I really think they do not believe we *can* run gracefully. But they do not realize the hindrance our skirts are, nor how little practice we get.

"The next order on the card is not printed just right—it should be *3-pound bag*. From this pile of sand-bags, varying in weight from three pounds to seven or eight pounds, select the weight indicated on your card—three pounds—and place it upon your head. Take careful position, draw the chin back as far as possible, keep the eye fixed on something directly in front of you and on a level with it, and, as in running, press the hips well back and the chest forward. That is right. Now walk rapidly. In the effort to keep the bag in its place and the head in position, all the muscles of the back, with the spine itself, are brought into action."

Miss Kitty was a plucky little damsel, and the four times were accomplished, though with various mishaps to the bag.

"With the running and walking, you have accomplished nearly a quarter of a mile. Now come to the pulley-weights, which 'P. W.' stands for. These, one of our prominent and most skilled body-developers calls the bread-and-butter of body culture. By their aid we can call into action all the great muscles and many of the smaller. The other apparatus will enable you to utilize the development you gain by the use of these. You see we have various series of movements printed and pasted against the machines. The movements of 'Series B' are for both hands; and the four—'1—4' strengthen and make symmetrical the upper arm. Until you grow firm and elastic here, you will be unable to use the other apparatus. Let me show you what I mean."

I went to the parallel bars, put a hand on each, and sprang into them, holding my weight suspended at arms' length, my hands by my hips and the arms parallel to the sides. I asked the astonished Kitty to follow me. She could not.

"Well, climb up in some way."

This, with considerable exertion and much awkwardness, she succeeded in doing, sitting upon one bar.

"Now swing yourself in as I was, and I will hold you."

This took all my strength, and when I let go, she came tumbling upon the mat below. Her mother looked on with interest and acknowledged the weakness.

"Few men can understand how very small a woman's muscular force is," I said. "Many women who lift their babies from the floor, do it liable to a strain any minute; the energy is nervous, not muscular. The average boy eight, yes, six years old, can hold his weight, and maintain himself in positions few women can even take, but this does not in the least imply that muscular force cannot be developed at every age; though of course, the younger, the better and quicker. Active and well-trained muscles mean harmonious development, beautiful lines and curves, and *health*."

While we were talking, Kitty had been taking her movements, counting on each, until she reached the number on her card, 20. Making her put one hand on the acting muscle, she discovered, much to her satisfaction, that numbers 1 and 3 made the tiny one on the upper part of the arm swell, while 2 and 4 worked the under muscle—the former the biceps, the latter the triceps.

"We will watch and see what six months will do for this arm, not only in power, but in looks," I said.

Moving from the weights to the "shoulder-bars," she found them to be two upright poles placed apart the width of an ordinary adult's shoulders.

"Place your hands," I directed, "one on each bar, so that the forearm is nearly horizontal, stand about ten inches from them, hold the body perfectly stiff, bending only at the ankles, and swing as far through as possible."

"Oh," she cried out at once; "it hurts—right here," indicating the chest near the shoulder.

"Exactly! that's where I want it to hurt until that chest can swell more to the front and grow bigger and rounder."

"What is No. 2?"

"Brace your toes firmly against each bar, fall back as far as possible, holding securely by the hands placed low down on the bars, then bend the knees and recover. Where do you feel that?"

"All across the back of my shoulders."

"Very good. We'll begin to strengthen the upper part of your back and then work down. The rowing-machine will supplement this movement. What next?"

"A breathing movement," answered the rosy and panting Kitty.

"Lie flat on your back on this mattress, look right at me, take as full a breath as you can, hold it while I count ten; exhaust it, inhale again and hold while I count twelve; exhaust, inhale and hold while I count fifteen. There, that last breath was the best you have given me, because you got really interested in what we were doing and let nature do as she pleased, so you didn't raise your shoulders, and your diaphragm—that little muscular partition on which your lungs

rest, was pushed down until the abdominal muscles swelled out, and then the sides did the same, so that you breathed to the bottom of the lungs. Instead of my counting, you may count for yourself and go through the same operation twice more."

This she did with tolerable results.

"One thing more, and then resting-time comes."

"I'm not a bit tired."

"You cannot tell about that till to-morrow. Should I let you do all you want to, you would be exhausted to-morrow, and that would be bad. I want to get you just tired enough to go home, get a good bowl of soup, and take a long delicious nap. This thing that looks like a big crab is the rowing-machine. Can you manage to get into it? Take the oars and pull back. 'Tis too heavy for you: I will alter it. You see," turning to the mother, "we do not allow heavy

boats here." She caught the allusion and smiled, already half convinced of the good of systematic work.

"Now pull back and push the seat back, and forward, bringing the seat forward too. No, open or separate the knees when you come forward, as your card orders: thus you get action in the inner leg and about the groin. Now you have it very well. Count your strokes, and imagine yourself gliding up the beautiful Charles under the overhanging branches. Twenty-five good strokes — those have brought into play the muscles of the forearm and the upper back, with many minor ones. Now stretch yourself on your back on that mattress with one little pillow, throw your wrap over you and rest five minutes quietly. In the mean time your mother and I will talk a little of country sports.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

IX.

TO PHILADELPHIA, AND WHAT WE SEE THERE.

Let us have equality of dollars before the law, so that the trinity of our political creed shall be, equal States, equal men, and equal dollars, throughout the Union. (GARFIELD: *Chips from the White-House*, page 454.)

WHILE the Travelling Law-school have been talking about bargains and business, they have reached Newark. This place is famous for its manufacturing establishments. Here are made in great quantities, steam-engines, carriages, iron and tin ware, saddles, telegraphic instruments, rubber and celluloid articles, Russia leather, soap — in short, an endless variety of goods. It is said that a greater number of useful inventions have been produced by Newarkers than by the inhabitants of any other city in the land. You already know that importing is governed by the national government. Manufacturing is governed by the States; each State makes laws for whatever factories are within its limits. The reason is, that importing is bringing goods from abroad, manufacturing is done at home. Now it is the American plan to have a national government for taking care of foreign affairs, State governments for domestic affairs; thus the manufactories of Newark (and of Rahway, not far beyond) are subject to the laws of New Jersey, and the government at Washington has scarcely anything to say about them. Soon we shall pass New Brunswick and Princeton, where are famous colleges. These, like factories,

are governed more by State than by national laws. The colleges also make laws for the students. Just as people living in a town or city are expected to obey the laws of the corporation, and passengers in a railroad train must obey the company's regulations, so students in a college ought to obey the rules of the college.

In this country the students of a college and the people of the town where the college is built are, usually, independent of each other; the townspeople obey the town by-laws, and the students obey (or ought to obey) the college faculty; but in many foreign places it has come to pass that colleges have gained authority over the townspeople. This is partly because these colleges are so ancient and permanent. Thus the famous Oxford University, near London, is far older than any such institution in America. It is also larger and wealthier. Gradually it has acquired influence and authority over local affairs, until now it quite governs the town, instead of the town governing the University.

Harper's Magazine once published a composition written in the year 1700, by an Oxford school-boy, upon "tyrants." It reads thus:

A tyrant is a savage hideous beast. Imagine that you saw a certain monster armed on all sides with 500 horns on all sides dreadful fatnd with humane entrails, drunken with humane blood this is the fatal mischief whom they call a tyrant.

WILLIAM.

From reading this composition we may conclude

that school-boys were about the same then as now, but that governments were more oppressive two centuries ago than in our day. American boys do not hear or care enough about tyrants to write compositions upon them, nor would they write such an exaggerated description.

Soon we shall pass Trenton. This is a capital city, the capital of New Jersey. Here, therefore, is a State House, and here we should generally find a governor, and, at the proper time of year, a legislature, just as in Boston.

Now we travel onward, passing another boundary line without seeing it, and at length draw into Philadelphia. This is not a capital city. It is the largest city in Pennsylvania, but Harrisburg is the capital. But it is a very attractive metropolis, containing many beautiful and important buildings, also a delightful park, called Fairmount, where, about six years ago, the famous World's Fair was held. A world's fair is partly a national, partly a State matter; thus the general government at Washington invited the foreign governments to send their manufacturers and workmen, but the State government at Harrisburg had most to say about the land and the buildings for the exhibition.

Philadelphia is a famous city in the history of our government. It was founded by William Penn, who set an excellent example of justice and kindness in dealing with the Indians inhabiting the land when he and his colony came. Here Franklin lived when he was a printer's boy. Here was written the Declaration of Independence; here the congress of the colonies adopted it; here it was brought forth and read to the assembled people, in the State House yard, on the Fourth of July, 1776. And here Congress often met until Washington City was founded.

There is in Philadelphia a celebrated building called Independence Hall. It was originally the State House, but now it is stored with curiosities connected with the history of the government. It has been refitted to look as much as possible as it did in 1776. It contains the ancient and quaint desk on which the Declaration was signed; the arm-chair of John Hancock; the original draft of the Declaration, and the chairs and portraits of the signers. There is also a National Museum, where a great many similar relics are preserved; one of the most curious is the Independence Bell, which rang to proclaim the adoption of the Declaration and the birth of the new nation. All these things are very interesting for a Travelling Law-school to see.

Another very important building is the United States Mint. A mint is a kind of factory where money—such as eagles, dollars, halves and quarters,

and dimes—are coined or manufactured. The whole business of making gold and silver money is done by the United States government; the States are not allowed to make any, neither are towns, or cities, or individuals. A reason for this is that if any one who chose might manufacture money, there would soon be so many kinds as to perplex the people. Therefore all coins are made by the Federal government. If a person has gold or silver and wishes to have it made into money, he must send it to a mint—there are five mints in different parts of the country, but that at Philadelphia is the most important—and ask to have it coined. Coining is a very curious and beautiful process. The object of it is to make sure that the pieces shall contain exactly the right quantity of the metal. When gold is cut into round pieces of precisely the right size and weight, and pictures are stamped on each side, and curious marks called “milling” are pressed upon the edge, no person can take away any portion, however small, without detection; for wherever any is taken, a little of the picture or milling will be spoiled.

Only metallic money is made at mints; the bank-notes and treasury notes are printed at Washington. But these notes are not really money: they are only called so, because they are used instead of money. A bank-note is a promise by a bank to pay a certain sum. A treasury note or “greenback” is a promise by the United States government to pay the sum named. The reason why these paper promises can be used for money is that they are so much lighter and easier to carry, and that people generally understand they can get gold money for them whenever they wish. When a single bank becomes unable to pay money for its notes, people say that “the bank has failed;” and then its business is stopped. Sometimes all the banks and the government also have been unable to pay gold money—or “specie” as it is called—for their promises. Such a state of things makes a great deal of trouble; yet if people know that some day sufficient specie will be made, and the promises will be paid, they can use the paper promises for a while as if they were really money. But if they did not expect that one day payment in specie would be made, they would soon refuse to take the paper promises for money, and the consequence would be that the bank-notes and treasury-notes, however prettily they were printed, would become worthless, except as pictures. It is of great importance that enough gold and silver money should be made at the mints to make it certain that the paper money all over the country can be paid in specie whenever any one who holds it chooses specie. This is what President Garfield meant by saying: “Let us have equality of dollars.”

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

VIII.

CHOPIN AND PIANO MUSIC.

A FAMOUS organist once betted that he could produce one million notes on the piano in twelve hours. He accomplished his purpose in much less time, thus exhibiting the wonderful resources of the instrument. The piano is the most popular of musical instruments, and for no other has so much good music been written.

Frederic Chopin, one of the most imaginative and spiritual writers of pianoforte music, was born in Warsaw in 1810. He was so frailly constituted that it required the greatest care on the part of his parents to preserve his health in his youth.

His wonderful interpretations of written music in boyhood attracted the attention and won the admiration of Prince Anton Radziwill, who provided for his complete education.

When about twenty years of age, he set out for London. It was a time of war. His passport read, "via Paris," and these words shaped his destiny. He entered Parisian musical society, a young man full of grace, refinement, and endowed with a wonderful intellectual beauty; his art surrounded him with friends; he was soon a favorite of the most cultured and brilliant salons, and thus the city became his home. He used to speak playfully of his passport "via Paris," and say, "I am on my way to London."

His piano-playing held the rapt attention of audiences wherever he went, and triumph succeeded triumph until his fame was the pride of the city.

Let us glance at the brilliant men and women of the time, and at one of the salons at which the spiritual young tone-poet was a frequent guest.

It is an autumn night, and there is to be a musical party at the famous house of the Pleyels. Pleyel? All are familiar with *Pleyel's Hymn*, but perhaps few know that towards the end of the last century the works of this composer were more in demand than those of any other musician, and his fame eclipsed that of any living artist. His compositions, mostly forgotten now, would fill a library. He was a manufacturer of pianos as well as a composer, and his son Camille followed the same pursuits. He lived in elegant retirement, and was looked up to as a father among the young musicians. He died in 1831.

Meyerbeer was there. He had thrilled Europe with his musical inspirations, and his young mind was training for the production of those marvellous works, *Robert le Diable*, *The Huguenots* and *The Prophet*,

which, unlike the compositions of Pleyel, have won enduring fame.

Liszt — but of him we shall speak hereafter.

Heine was one of the number — the great German song-writer whose verses all the tone-poets loved to set to music. His career, too, had been exceptionally brilliant. It is said that on the appearance of his *Reise-bilder*, "Young Germany became intoxicated with enthusiasm." His writings on democratic government had not only won the hearts of the liberal German people, but carried his influence into all lands. Fame dazzled him now, as it did not in after years. "What good," he said, near the close of his life, "does it do me to hear that my health is drunk in cups of gold when I can only wet my lips with barley-water!"

In this state of mind he turned to the consolations of religion. He read *Uncle Tom's Cabin*. "With all my learning," he said, "the poor negro knew more about religion than I do now, and I must come to a knowledge of the truth in the same humble way as poor Uncle Tom."

It may be that the famous Countess Potocka was there; she was at this time one of the most famous beauties of France, and one of Chopin's friends and admirers. We cannot say but one was present at such saloon gatherings whose genius was producing literary surprises seldom equalled in Paris — Madame George Sand. It is said that Chopin at first shrunk from this brilliant lady, and from her almost irresistible influence, but he was dazzled at last.

It was at this period that Chopin began to produce those compositions that are found on all the pianos in the world. The tree had blossomed early, and bore early fruit. Ballads, nocturnes, polonaises, mazourkas, concertos, sonatas, flowed from his pen; they dropped ripe like fruit in the mid-summer sunlight.

These were happy days. But the eclipse was at hand; the long shadow was drawing near. His physique was frail, he was melancholy, and there was a spiritual tone to his character that received a shock each time that it came in contact with the rude world. In 1837 he was attacked by disease, which proved the invasion of consumption. He was told that he must flee from Paris to escape the winter air.

Madame Sand had become his most intimate friend. Whether she loved him cannot be told, but she admired his genius. She was now a literary queen, and lived in an intellectual atmosphere, and when she saw the young musician stricken down, she pitied him, and offered to accompany him to the South.

They went to the Isle of Majorca. Here, amid the groves of oranges and citron, olive gardens, vines and spices, and in the air that was perpetual aroma, his health recovered its tone. When he left Paris no one expected that he would return. When he reached the fair isle of the Mediterranean, it seemed to be to die. Madame Sand was faithful to him in the sick-room for weary weeks and months; she thought it her mission to nurse him back to life, and from the period that she chased the shadows away from his bed of death, she seemed to him like a superearthly being.

Happy days came again. Liszt says that the "recollection of the days that were spent on the Isle of Majorca were to Chopin like the memory of ecstatic bliss." He returned to Paris, and, now that his health was restored, he wished to marry Madame Sand; but she refused, and this refusal became the supreme disappointment of his life.

His music reflects all the lights and shades of feeling that grew out of these experiences. We tell you these events of his history, and must tell you more that are as sad, that you may better understand the compositions of one of the greatest, saddest, most tender of all the composers for the piano.

"The world had no joys after this," he once said, referring to his bright days of recovery at Majorca. But he lived many years. In 1840 his health again declined, but, although he suffered much in the winter season, he was able to work in summer, and the tide of music flowed on. In the winter of 1846-7, he was scarcely able to walk; he could not go up a flight of stairs without painful strictures of the chest. He was very melancholy, and constantly spoke of the great disappointment of his heart.

But he lived on. He grew indifferent to all outward things, and lived only for religion and art. He went to London—"via Paris." His reception was worthy of his genius and art. He seemed to forget his disease, and his melancholy for a time disappeared. He played in public, attended receptions, and disregarded his physicians. He was presented to the Queen; he was the reigning prince in the musical world.

His death was lingering but beautiful. When he could work no more nor leave his bed, his sister came from Warsaw to nurse him. He looked upon death with Christian hope. "Bury me next to Bellini," he said.

The grave of Bellini was near to that of Cherubini, in the churchyard of Père la Chaise, Paris.

His friend Liszt has described the death-scene, and there are few things more beautiful in biography:

"On Saturday, the 15th of October, a crisis, still more painful than any that had preceded, lasted several hours. He bore it with patience and strength of spirit. The Countess Delphine was there; her soul was penetrated, her tears flowed. He opened his eyes, and saw her standing at the foot of his bed, the tall, slender figure, clad in white, the image of an angel beautiful as ever painter's fancy had created.

She seemed to him a heavenly apparition; he revived an instant, and breathed out a prayer to her to sing.

"All believed that he was talking wild; but he repeated his request with a tone of earnestness which no one could resist. They pushed the piano in the hall close to the door of his chamber, and the countess sang with sobbing voice; tears ran down her cheeks, and never had her fine talent and her wonderful singing a more touching expression.

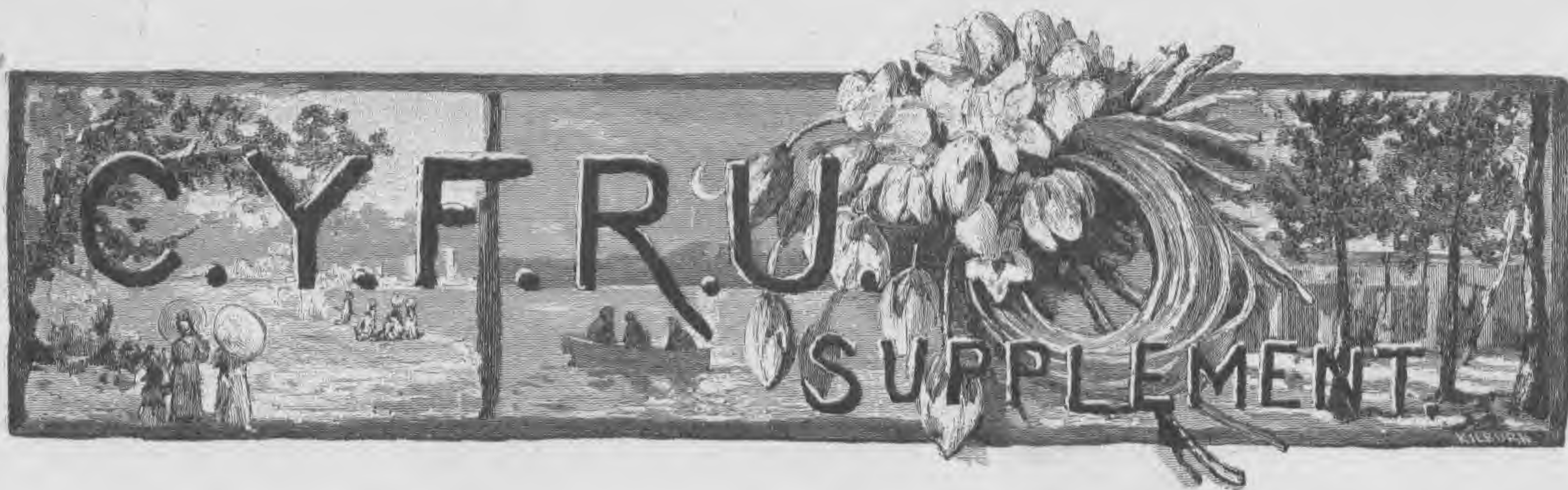
"Chopin listened, and seemed to forget his sufferings; she sang the hymn to the Holy Virgin, which, it is said, saved Stradella his life. 'O my God, how beautiful!' said he; 'once more, once more!'

"The countess pressed down the overflowing fountain of her feeling, seated herself again at the piano, and sang a psalm of Marcello. But within the chamber a piercing pain suddenly seized the sick man; all the bystanders were terrified, and involuntarily sank in silence on their knees; only the voice of the countess floated like a heavenly melody above the sighs of the others. The night came on; a twilight spread its shadow over the mournful scene; Chopin's sister knelt against his bed, and wept and prayed.

"In the night he grew worse; yet on Monday morning he became somewhat better, and asked for the holy sacrament. In the absence of the Reverend —, with whom he had been on very friendly terms in their common exile, he sent for the Reverend Alexander Jelowicki, one of the most distinguished men of the Polish emigration. He saw him twice, and received from him the holy supper with devotion, in the presence of his friends. Thereupon he let these approach singly to his bedside, gave them a last farewell, and invoked God's blessing on them and on what they loved and hoped. The remainder of the day passed off amid increasing pains; he spoke no word more. Only towards eleven o'clock in the evening did he feel himself slightly relieved. The clergyman had not left him, and Chopin expressed a desire, so soon as he found his speech again, to pray with him. He pronounced the prayer of the dying, in Latin, with a clear, intelligible voice, leaning his head on Gutmann's shoulder.

"A cataleptic sleep lasted till the seventeenth of October, 1849. About two o'clock began the death-struggle; a cold sweat ran from his brow. After a brief slumber, he asked, with scarcely audible sound, 'Who is with me?' He inclined his head to press his lips once more gratefully upon the hand of Gutmann, who held him in his arm, and in this moment he breathed forth his soul. He died as he had lived, in love."

Chopin had loved flowers, and his friends piled the bed on which the dead form lay with them, so that the face seemed like that of a child asleep in a garden. His beauty came back again after death,—the spiritual expression of calm after suffering. Tears fell like rain on the flowers; and so the artist slept. This last scene occurred in Paris in 1849. His illness had lasted twelve years.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

XI.—THE HAMMER OF THE SARACENS.

BY MRS. M. H. CATHERWOOD.

IN the month of October, it being the year of our Lord 732, a Frankish lad slipped out of the city of Tours, and took his way toward the encampment which protected it. A rolling meadow-like country lay around him, touched with russet shades; a belt of trees on a swell had not yet lost their leaves, and these were flaming yellow and scarlet. The air did not lack that haze which makes autumn landscapes the most beautiful pictures that our good earth shows us. This boy snuffed the air with delight; he had recently known what it was to be pent within the walls of a besieged city. But he cared very little about the landscape. The colors in the distant Saracen camp were more commanding to his eye. He could see the crescent on the Saracen flags, and groups of those horsemen, with turbans on their heads and cimeters at their sides, who had slashed their way through Gaul, and were at this moment threatening the destruction of Tours and all the Christian North.

When the lad approached the outskirts of the Frankish camp, he was halted and his message demanded of him.

"I come to my father," he replied, flushing before the big-limbed soldier who questioned him, and wishing he were old enough to carry such a spear in these wars. "He is Cedric, a captain near Duke Charles."

"Yonder are the tents of the duke's officers."

The boy approached the tents, seeing around him everywhere preparations for battle. The two armies had lain seven days facing each other, with the plain between them on which they must soon close with a shock, one overcoming the other. He slipped his hand timidly into the mailed hand of a man who stood talking with others similarly covered. Their helmets and the metal plates on their bodies made

sheens of light in the setting sun. The hand of a woman or a youth could scarcely lift the suits of armor worn by heroes in battles which depended less on the manœuvring of generals than on the hand-to-hand courage of individual men.

"Cedric, my son," said the officer, turning aside, as if half annoyed to see the boy there, "what message does your mother send?"

"None, father."

"Then why are you here?"

Young Cedric wanted to say he was no child, but full thirteen years of age, and large for his years; that he had sometimes tried his father's helmet on, and would love to buckle a breastplate over his tunic, and take at least a spear in his hand. But who could speak up to such mighty men without meriting a rebuke for boldness?

"Go into the tent to Gerome," said the father. "Presently, before the sun has set, I will dismiss you again to your mother with messages."

Young Cedric entered the tent, where he found his father's old servant busy with arms.

He was obliged to tell the old man how and why he came, and to confess that nobody attended him.

"There will be a hue and cry after you in the household, young master," said Gerome, "and I shall have to take you back to the city gates for your pains, unless you want yon Moslem horsemen to carry you off, or stoop from their saddles to slice you with their cimeters."

"Think not that I fear any Moslem horsemen, Gerome," replied the boy, seating himself on a goat-skin, while he watched the old man burnish a helmet. "I wish that piece were intended to cover my head, and that battle-axe were for my hand."

"Hear the lad! And only of late these infidels were tearing like tigers at our walls. You know nothing of that Moslem leader, Abderrahman. The cimeters of his hosts have prevailed all through lower Gaul. He defeated and slew Count Eudo at the River Garonne. Mighty and strong are those

turbaned hordes. They do tell that his Berber cavalry are officered by Arabs whom nothing can turn back."

"They have not yet met our Duke Charles," said the boy. "Are the Saracens such men of limb as the Franks? Besides, they fight against our Christian faith; and will God allow them to prevail?"

"I don't know," replied the old soldier; "it's generally the strongest that prevails in battle, faith or no faith. These infidels will bring their Koran and their prophet, and thrust them down our throats whether we will or not, if Abderrahman overthrows our duke."

"I never would submit to that," said the boy.

"The issue of the battle must prove that," commented Gerome, grimly. "Yonder host is loaded

camp," said his father. "We Franks must put our stakes behind our backs while we fight."

"If you send me from you I will try to escape again in the morning, father. There is my brother to have charge of mother. Let me remain with you."

Young Cedric's father gave no assent, only smiling on his son, and seeming inclined to wait for this boyish ardor to cool. "Have a care over him, Gerome," he said, turning away. "Later he returns."

Cedric the captain half forgot his son, until early next morning, when the lines of the opposing armies were formed, he found the boy by his left hand; then he dismissed him to the rear with a sternness that brooked no hesitation.

At the rear of the Frankish army, on a little knoll



"VIVE CHARLES MARTEL!"

with treasure that they have pillaged from this groaning land. They bring their women and children to plant on our hearthstones. Young master," said the old soldier, straightening himself and lifting an impressive finger, "even a carle like me can discern that we must conquer to-morrow, or the Saracens become our masters forever."

Young Cedric's father now appeared at the tent door and bade Gerome conduct his son back to Tours, and charged the boy with many messages to his mother. He held the young face between his mailed hands, and looked at it attentively. The boy pleaded to remain until morning. "Bestow me anywhere, father. Or let me carry a spear all night."

"There are women and children in the Moslem

which gave him a commanding view of the whole field, this boy saw fought that decisive battle of Tours which was to complete or defeat the triumph of the Moslem faith. He realized that home and life depended upon the issue; and he had long heard his mother tell of the cruelty of these dark-skinned invaders.

Therefore, as the first detachment of Saracen cavalry moved forth to begin the attack, he held his breath and his muscles grew tense with excitement.

The Franks were formed in battalions bristling with spears. They met the shock, the trampling steeds and slashing cimeters, like stone walls, and many a spearman lay in his blood, many a turbaned head went down, and all the lines encountered. It became that hand-to-hand struggle which distinguished

the warfare of the Middle Ages. No artillery smoke obscured that field, and the sun shone with a glare on short-swords that next instant steamed with red, on axes in their swift descent, and on armor that crashed aloud at the fall of its dying wearer.

During that day no man could have said what the result would be. Both sides were courageous as lions. Duke Charles led an army in whom he could trust for this occasion, though no long military discipline held them united. But the Moslem leader, Abderrahman, was handling skilled conquerors.

Towards evening young Cedric noticed a break in the Saracen cavalry. It was told afterwards that a cry rose among them that the Christians were pillaging their camp. A detachment of Franks had fallen upon their rear. So the cavalry turned to protect the treasure in their tents, and this turned the battle of Tours. There was a panic along the Saracen lines.

Again, a cry arose that their general, Abderrahman, was slain. The rout now became general. The Franks drove the Moslems before them. Darkness closed in, leaving them masters of a field from which the Saracen power flowed back forever.

All night the faithful Gerome and his young master searched the heaps of wounded and slain for the boy's father. Horses and bodies, turbans and helmets, cimeters and spears, were mingled, and the torches of parties carrying away the wounded cast a weird light over this field.

At dawn, before the faintest streak of sunrise, the Saracen cavalry were seen moving in the distance, and the Franks immediately followed up their victory by pursuit.

It was late in the morning that Gerome and young Cedric found their captain, half-buried under heaps of Moslem, mortally wounded, and so faint he could not speak to them until revived with water. Gerome took off the soldier's helmet, and the boy supported his father's head.

"It was well that I remained, father," he said

staunchly. "Now give me the messages to carry to my mother."

"You can carry her the news of victory," said Cedric with effort.

"That I can, father—they are yet driving the Saracens. And while Gerome and I searched we heard that all the treasure these infidels have spoiled from our land now lies in heaps in their deserted tents: emeralds and gold, silver vessels and rich stuffs."

"They have seized on their women and children, and have flown like the wind, master," said Gerome; "and their general, Abderrahman, is slain!"

A noise of shouting and trampling was heard upon the field. Directly past where the boy and servant were raising their charge upon a litter, came the Frankish duke surrounded by his officers. He reined in his horse as he recognized this old comrade, Count Cedric, but what he was about to speak was swallowed up by another shout raised on the field:

"Long live Charles Martel!"

"Martel," uttered the dying soldier, though no one caught his words but his son, who was soon to be young Count Cedric in his place; "the Hammer! he has, by the help of heaven, beaten down the infidels and broken Saracen dominion. Our Charles, the Hammer!"

Thus was this decisive trial made between the strength of the East and the West, between Christianity and Mohammedanism, exactly one century after the death of Mohammed. It was the first severe check Saracenic invasion had yet received.

While young Cedric returned with his father's body to the city of Tours, mourning, and obliged to lay that price of the victory at the feet of his mother, perhaps he remembered that with his father's armor he inherited the name of a hero who had helped to fight one of the decisive battles of the world.

COLLATERAL READING.—This battle is called by the French the Battle of Poitiers. It is treated by Gibbon in his "Decline and Fall of the Roman Empire;" by Henri Martin in his History of France; by Hallam in his "Middle Ages;" and by Mrs. Marshall in her History of France. The account by Martin is very spirited. Mrs. Marshall properly calls it the Battle of Poitiers, but the Battle of Tours is its usual name.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

X.

THE PONIES.

I WISH I could write about ponies from experiences of my own, for I have great respect and

admiration for those quaint little horses. But I am left to the next best thing, which is to avail myself of the experiences of some friends of mine when they were children.

The children were English—there were five of them—and each always had one pony and sometimes

more. The special pets were Fly (because he went so fast), Pontedarro, Lesmehago, Kitty and Jack. The ponies were indispensable, because there could be no going anywhere in any other way. And before you begin to waste any time in wondering how that could be, I may as well say that the country was South Wales, and that it was a mining region. The place where the family were living was a level spot in the midst of hills full of copper and iron and limestone. There was not a tree or a house in sight; and the nearest village was fifteen miles off, where there was a turnpike on which the mail-coach went. There were no roads; consequently there were no wheeled vehicles of any description. The only way of travelling was on the ponies; and as soon as they were broken, these little children were put on their backs, and presently learned to ride as if they grew there.

The Welch ponies be-

long to the wild race peculiar to the north of Europe, known as the dun or tan stock. Buffon gives an account of them; and I think that charming artist, Rosa Bonheur, who is so fond of animals, has painted excellent portraits of some of them. They all are close-built, hardy, sure-footed, bright and small; but no others among them so very diminutive as the Shetlands, which are such tiny creatures that we can any of us believe the story that a gentleman once carried one home in his chaise, covered with the apron, where he kept him quiet down out of sight by giving him bits of bread.

Those of Wales are of fair size, with elegantly shaped heads and beautiful eyes, and manes which sweep the ground. They are not shaggy like the

Shetlands, but they have rich colors — all jet black, or bay, or buff, or dappled with gray; and they make beautiful pictures seen in droves on the naked mountains, where they run wild the year round. A colt is never used until he is two years old, and that is why they have such perfect forms. Each one has a mark burned into his hair by the owner, who pays the great land proprietor so much a year for pasture-age (*tak* they call it, for tax), and then all are turned loose to roam about in company. But they are so gentle that they can be caught; and when a Welch peasant woman wishes to go somewhere she will run out and catch one, spring upon his back by just touching her hands, and ride off with only a halter to guide him, her thick serge petticoats making all the saddle she needs. And when she comes back she turns him loose again to take care of himself.

They are wonderfully wise creatures, and can pick up their living where a stable-fed horse would starve. If they cannot find what they like best, they will make the most of what there is: snatch a mouthful of bitter herbs, and suck up a few drops of water left in the hollow of a rock, and be satisfied. Their instincts are sharpened by the necessities of their roving life; they can always contrive to go where they want to, and are keen at all manner of tricks possible for a pony to do.

Some of those which I was told about soon found out that the steward (the children's father) always carried salt in his pockets when he went about over the country to look after the sheep, and they would gather around him and thrust their noses in after it, so that they wore his coats out with their rubbing. And they would come down to the valley where the cottage was, and crawl under the bars like a dog to get into the yard after something good to eat. One piece of mischief they perpetrated was to help themselves to the dinners of the farm laborers. These men came in the morning to their work, and each had his dinner in an oval wooden box, worn smooth by long use, slung over the shoulders by a leathern strap. The food was always the same, for, like the peasantry in all countries, they never in their lives could afford variety: bread and cheese, barley bread (which they called *barre couse*), and hard white cheese. Such as it was, however, it was a delectable treat to the ponies, who made a practice of waiting somewhere in the neighborhood until the men had put the boxes away in the sheds and gone off about their work. Then these crafty animals would go to the spot, eat the contents, and — that was the "cutest" feat of all they knew how to do — drop the covers back into place as if nothing had happened. When the hungry toilers came down for their coarse and hard-earned noon-day meal, not a crumb remained. They soon found who had done the mischief; but it was not so easy to find a hiding-place which the four-footed depredators could not smell or spy out.



JACK'S FAVORITE PLACE.

It was on the backs of such bright ponies, made if possible more intelligent, and *so* faithful and affectionate by being much petted, that the party of little folks always used to be going off on errands or for their own pleasure. Such a joyous, healthful kind of life as it was, too, though those jaunts on which they went to deliver messages for their father, often took them into dangerous places. But the ponies were to be trusted; and so were the children, who grew to be courageous and self-reliant, and no harm ever came to them. In the summer the only paths over the mountains were the beds of the brooks, from which the water had dried away—crooked channels, gullied and worn by the winter torrents, and turning many a sharp angle where a craggy ledge or a boulder almost shut the way; but the small rider would leave everything to the faithful pony, drop the bridle on his neck, and stick fast, sure that he would pick his way and come out all right.

It was as dangerous a kind of country as could well be imagined. Great perils lurked in the old forsaken lime-pits, which had been left open when there was no further use for them. These were on the edge of some precipice—deep, vast, cemented pits, into which the broken limestone rocks had been thrown, then a fire made below, which would burn there with a solid white heat for days together, lighting up the whole country-side.

Besides all the rest, there were the collieries—dreary black places, in that treeless, shrubless waste, where you went into the side of a hill, into a world of darkness. It was like the Hartz mountains, like the German wonder-stories. The children were frequently sent there with messages; and they delighted to sit on their ponies and watch the grimy men at their work, and the trams carrying the coal. Marvellous things they had to tell of what they had seen, when they were safely back at their own cottage, where a bright fire of that very coal was kept up the twelve months round, and, in all the seven years they lived there, never once went out.

Of the many ponies who were their companions, right good comrades in the best of fellowship, over so many miles almost every day of their lives, the

handsomest was Jack. He was of pure Welch black, except a diamond-shaped spot as white as snow in the middle of his forehead. In genuine pride and self-respect, which kept him always at his best, he was as near human as a pony could be. He carried his head so high that when his ten-year-old mistress was on his back their two heads were nearly on a level. He was very fond of her, and would follow her about like a dog, and, so far as he knew how, was a useful little servant to her; and when she was riding he seemed to feel it his duty to take charge of the whip, which he held between his teeth as he galloped along.

In the morning she always went out to the stable to see him; and, like the trim English maiden she was—as quaintly sweet, I imagine, as Kate Greenaway's little damsels—she had on a white apron tied with long strings. These had an irresistible fascination to Jack, who immediately began to untie them; but if by any chance he took hold of one of the bows instead of an end, he saw his mistake, and dropped it, seeming to understand that otherwise he should pull it into a knot. After he had made the apron fall off, he would try to twist the buttons from her dress.

The stable opened into the door-yard, and as soon as he was let out, he would start for the house to find her, going up the steps into the hall, and past the kitchen door, as if there was nothing there to attract him. If it happened to be meal-time he would stop in the dining-room, and walking up to the table, lay his head on the shoulder of some one of the family, and drink a cup of tea. His favorite place, however, was the parlor, where at certain hours little "Missy" was sure to be practising on the piano. To get there he was obliged to go up several more steps; then he would unlatch the door and let himself in, march straight up to where she was perched at the instrument, and lay his nose against the keys. He would even go and snuff at them, coaxing her to play; and many a time she was to be seen at the piano, with the kitten lying on one end and Jack's head on the other; and until the music ceased, it was next to impossible to get him out of the room.

WAYS TO DO THINGS.

X. — HERBARIUMS.

BY MARGARET LAKE.

THERE must be hundreds of boys and girls who are eager to begin botanizing right away, now that they are out in the country for a couple of months.

The botanists who do things in the correct way would tell you that you must have a tin box, made on purpose to carry with you when you go after wild flowers, and that they must be put in as soon as you gather them, so that they may be kept fresh. This any tinman will make for you at a cost of about fifty cents. You can have it in very simple shape like a flattened cylinder, or like a candle-box, say twelve or

fifteen inches long. It must have a lid opening nearly the whole length, and two rings, or some other arrangement, by which you can sling it over your shoulder.

A botanical box is a very handy thing, but it is by no means essential. Any ingenious child can fix up something that will answer the purpose, and save expense. I have always got along with a basket, using care that the flowers should suffer no injury. With some moss at the bottom and leaves at the top, they will keep quite fresh. But, if they are wilted when you reach home, just sprinkle and put them away in a cool, dark place. They will come out all right by the next morning. Flowers which are so sensitive that they can hardly bear the touch of your hand, like spring-beauty, dwarf ginseng and wood sorrel, will brighten up under this treatment. And if any seem very far gone, nearly spoiled, cut a bit from the end of the stems and set them in a cup of very hot water; and after a few hours you will be astonished to see that they have expanded and are almost as good as new. In this way you can restore plants which have been several days on their journey to you in the mail-bag.

It is sometimes important to press flowers on the spot; and for this purpose some persons take an old atlas, or a similar large thin book, to the woods with them, strapping it tightly together; and this is a good way. But there is a better one, which is to have a sort of portfolio, with strong but light board covers containing sheets of drying-paper. This, too, must be tightly corded or buckled. There are also "presses" for sale among the botanist's supplies, which just meet your want. One is made of strong wire, with straps for fastening and for slinging it over the shoulders; the other consists of two pieces of perforated board, and you carry it in your hand by the handle, as if you were a "carpet-bagger." You must understand that the wire openings and perforations are for the purpose of admitting air. The "Portable Wire Plant Press" costs \$2.25; and if you have a hundred drying-papers to go with it, the expense will be a dollar more. The wooden press, which is very handsome, is \$2.75.

With one of these, you are fitted for all your summer excursions among mountains and across continents for your whole life. But, as I said about the botanical box, a boy or girl of any mechanical skill can make something which will serve the purpose. The covers of one of those stiff account-books which tradesmen have, will be just the thing for a portfolio; puncture them with an awl, and fit them up for yourself.

In collecting, if the plant is small, get the root and all; roots are an interesting study of themselves; and you will want all the parts—leaf, stem and root—to accurately represent it. It is best to secure two or more specimens. You will often wish to exchange with friends at a distance who have varieties different from yours. And gather everything, no matter how unattractive or how diminutive or simple the form.

Now we will suppose that you have come home

with a quantity of flowers: you had no portable press, so you are prepared for the common mode of taking care of them. It is important that they be dried as soon as possible, in order that the colors, always fleeting, may be better preserved. Therefore, a kind of paper which is calculated to absorb moisture is what you need. A cheap quality of printing paper, and common wrapping paper, are recommended. Professor Gray says, "soft and unsized paper—the more bibulous the better," and a great many thicknesses of it. There is a kind known to botanists as "drying-paper;" a lady of great experience in pressing flowers says that nothing she has ever tried answers so well as that coarse, thick sort, such as is used to lay under carpets. It is cheap, and can easily be obtained. But, whatever you use, have your sheets at hand, also two boards and a heavy weight, and you are ready.

Lay your flower carefully on the paper. Do not let any parts be wrinkled or doubled over. Smooth out every petal and leaflet. Sometimes it will need every finger you have to fix and hold every part in place, and you could use to advantage half a dozen more fingers if you had them. Sometimes you will find a pen-knife convenient to poke some unmanageable composite things apart and keep them where they should be. If any petals should drop off, you can afterwards, with a little mucilage, attach them to the place where they belong. Do not put one flower over another, or allow them to lap or touch. Then lay a sheet of paper over, as many above as you please, and put them to press.

Look at them the next day, and if they are not drying well, change to fresh papers, and leave the others to dry to be used again. Great pains must be taken with a thick flower, and it must be looked after closely or it will mould. With a little care, in a few days your specimens will be in a condition to be left to themselves; but keep them between the boards and under the weight until they are thoroughly dry, or they will look shrunken and rough. After that, you can slip them into some large book for safety until you are ready to arrange them.

And now for the herbarium. If you wish to have a handsome one, you can buy a large blank book, or get printers' paper, and have it bound of any size you want, like a scrap-book, with "guards" put in where leaves are left out. But many botanists make up their collections in packets, using a kind known as "mounting-paper," cut into a standard size, 11 1-2 x 16 1-2 inches, or double sheets 16 1-2 x 23, these being most convenient. The first is the desirable size for you; and it comes at two cents a sheet, at a lower price by the ream. You can, however, get printers' or binders' paper, which is cheap and suitable. It is what a young amateur botanist of my acquaintance uses. He is making a collection of the flora of his native town, and intends to include a specimen of every flower, shrub, tree, etc., and is doing his work thoroughly and accurately. He folds his paper of

about the size first named, and stitches the leaves for one species together.. By and by all these packets, which belong to a certain *genus*, will be put into *genus* covers of strong Manilla paper, and held by one of the patent binders such as you see advertised.

Of course you are not expected to make such a specialty of botany as that; but you can have a valuable and interesting herbarium if you wish. In "mounting" specimens, never use but one side of the paper. Do not put them on "skewey," as children say. Where they are small you can have several on a page, arranged so as to produce a pretty effect; but in order for this, you must not crowd them. Have plenty of space around each. There are various methods of fastening them to the paper. I was taught to cut parallel slits, and slip the stems under. Two or three were needed for a long-stemmed plant. But other ways are better. One is to paste narrow slips of paper across here and there. The best, however, and that which gives the neatest appearance, is to put a little mucilage on the plants themselves.

Your specimens must be arranged in families. Do not mix roses, daisies and violets on the same page. You will wonder why certain things which seem utterly unlike, should belong together; but before you have gone far in botany you will see. Wait about placing them until you know. There is always somebody who can tell you. Do not have any guess-work; and when you are sure, finish up your page; and then write the

name of the genus and species underneath at the right hand; also the date when you found it; and if it is rare, the place; the color, and all the familiar names you have ever heard of; thus, if it is the *Houstonia cerulea*, write Innocence, Quaker-bonnet, Bluets, Venus' Pride, etc.

The ambitious amateur before mentioned, pastes a little piece of colored paper against his flower to show what its color was; but as it is impossible always to match the hues, his plan is not to be commended. You can write "lavender," "deep purple," "rose-purple," "pale blue," "cream color," etc., etc., only be sure that you are not color-blind.

If there is anything you wish to know about this matter that your own family, your teacher, or "the Wise Blackbird" cannot tell you, I don't see but you will have to buy a small book, costing \$1.50, prepared for just such seekers after knowledge as you are, entitled the *Botanical Collector's Handbook*.

You see that it takes time to press and arrange flowers, but does not everything worth doing take time? And it requires neatness, care, delicate handling, nicety of taste, to make a pretty herbarium. It may, when completed, be very beautiful, almost like a work of art. And there is the whole history of a floral year in one; a record, too, of what rambles, what delightful times in the woods! A part of your life will be in the herbarium you make. Do you not long to be about it?

OLD OCEAN.

BY ERNEST INGERSOLL.

IX.

THE DANGERS OF THE DEEP.

EVER since men began to go to sea, lights have been placed on shore to guide them to a landing-place; but in early times these were nothing more than fires on headlands. Three hundred years before Christ, however, there was built, on an island at Alexandria, a pyramid over four hundred feet in height, on top of which a great fire was kept burning, which, we are told, was visible to the corn-ships going to Egypt when forty-one miles away on the Mediterranean. This pyramid was called the Pharos, and to-day the French name for a lighthouse is *phare*, and the Spanish *faro*. The rocky coasts on both sides of the British Channel centuries ago showed beacon-fires on very dark nights. These were generally tar-barrels, which would burn brightly in a high wind when a fire

of sticks would be blown away. And they were generally lighted for the benefit of the fishermen, by their wives, without any authority from government. It was an easy matter to imitate such beacons, and bad men would often erect false lights, steering by which a ship would come crashing to sure destruction at the foot of the crags which thrust their cruel edges through the surf. When the ship went to pieces, her goods coming ashore would be seized and sold by the *wreckers*, as these wicked people were called. Many a fearful tradition has come down of the doings of wreckers, not only in England and Spain, but in America and in the East. One of the tricks of the West Indian pirates, when they saw a ship approaching their island in the evening, was to hang a lantern upon a horse's neck, and let him graze, well hobbled, along the beach. This would appear like the rocking of a lantern on a vessel at rest; and, deceived by the hope of a safe anchorage, the stranger would only

discover how he had been cheated when his keel struck the sand-bars and the pirates had begun their villanous attack.

Though scaffoldings and towers of wood, iron and stone were built here and there at especially dangerous points by governments long before the beginning of the last century, they were lighted by fires of wood or coal up to 1760, when Smeaton introduced wax candles at Eddystone. The Eddystone shoals were a group of reefs exceedingly dangerous, because they were almost invisible, and lay precisely in the track of ships bound up or down the English Channel. Two hundred years ago a lighthouse of wood and iron trestle-work was built there by Sir Henry Winstanley, and stood so well that he boasted, like King Canute, that the sea had not strength enough to throw it down. Soon after, he went out with a company of men to make repairs, when one of the worst gales in history arose, and the morning afterward not a trace of the structure remained. Another wooden frame took its place for several years, but was burned. Then the engineer Smeaton proposed to build a tower of stone, which should take the shape of a massive tree-trunk, with swelling base, like roots, founded upon a level floor cut in the rock of the reef. This stands to-day, rivalling its magnificent neighbor on the Biscay shore opposite, the lighthouse of Carduan, which was built to support a bonfire of oak, but has remained to be lighted successively by oil-lamps, by gas-burners, and finally by electricity. Thus, everywhere, and in all latitudes, the beacons and wooden towers and huge pyramids of long ago have given place to slender spires of solid masonry, holding powerful signals perhaps hundreds of feet above the waves, and visible as far as the curve of the earth's surface will permit. Yet in place of the sturdy bonfire of oak, or the huge iron cage full of coals, there is only a single lamp, whose rays are gathered by deep reflectors into a compact bundle of unwasted rays, and doubled and redoubled by rows of magnifying lenses until they can dart to the furthest horizon in a strong beam of steady light.

The United States expends \$2,000,000 annually in looking after her lighthouses, lightships and buoys. Indeed, these beacons are so thickly planted that it has been found necessary to distinguish between them in order to avoid mistaking one for another. Thus some of them are simply fixed white lights; some are white and revolve—the whole lantern on the summit of the tower being turned on wheels by machinery, and the flame disappears for a longer or shorter time; while others are white “flash” lights, glancing only for an instant, and then lost for a few seconds, or giving a long wink and then a short one with a space of darkness between. Some lighthouses show a steady red light, others alternate red and white. By these colors and varying periods of appearance and disappearance (published by the government in a book called the *Coast Pilot*) navigators know which light they are looking

at when several are in sight, as is often the case.

On some especially dangerous—because hidden—reefs or bars, like the shoals off Nantucket, or the extreme point of Sandy Hook, it is out of the question or bad policy to erect a lighthouse. Here its place is taken by anchoring a stout vessel, built to withstand the roughest weather, and arranged to carry one or two very large lanterns at its mast-heads. These are called “lightships,” and they are manned by a large crew of keepers who have a very monotonous time of it, confined in their rolling and pitching home with almost nothing to do.

Even the electric beam from a first-class lantern fails to penetrate a fog to any great distance; yet when the coast is shrouded in thick mist is the most dangerous of all times to an approaching ship. The only way, in such an emergency, in which a warning can be given, is by sound. In many places bells are rung; but often the point to be avoided is so placed that the roar of the surf would drown a bell's note, and then fog-horns are blown. These fog-horns are of a size so immense, and voices so stentorian, that it requires a steam engine to blow them; and they utter a booming, hollow blast, a dismal note as we hear it when we are safe on the land, but sweet to the anxious captain whose vessel is laboring through the gloom under close-reefed topsails, and uncertain of her exact position. One kind of these horns is very complicated in its structure, and screeches in a rough, broken blare, a note far-reaching beyond any smooth, whistling sound that could be made. Finally, buoys, which at first were simply tight casks, but now are usually made of boiler-iron, are anchored on small reefs, to which are hung bells, rung constantly by the tossing of their support; and on other reefs, buoys are fixed having a hollow cap so arranged that when a big wave rushes over, it shuts in a body of air, under great and sudden pressure, which can only escape through a whistle in the top of the cap, uttering a long warning wail to tell its position. Buoys in harbors are also made to carry lights, some by ordinary oil-lanterns, others by having their hollow interiors filled with greatly compressed gas, which burns in a strong globe of glass, and cannot be blown or drenched out.

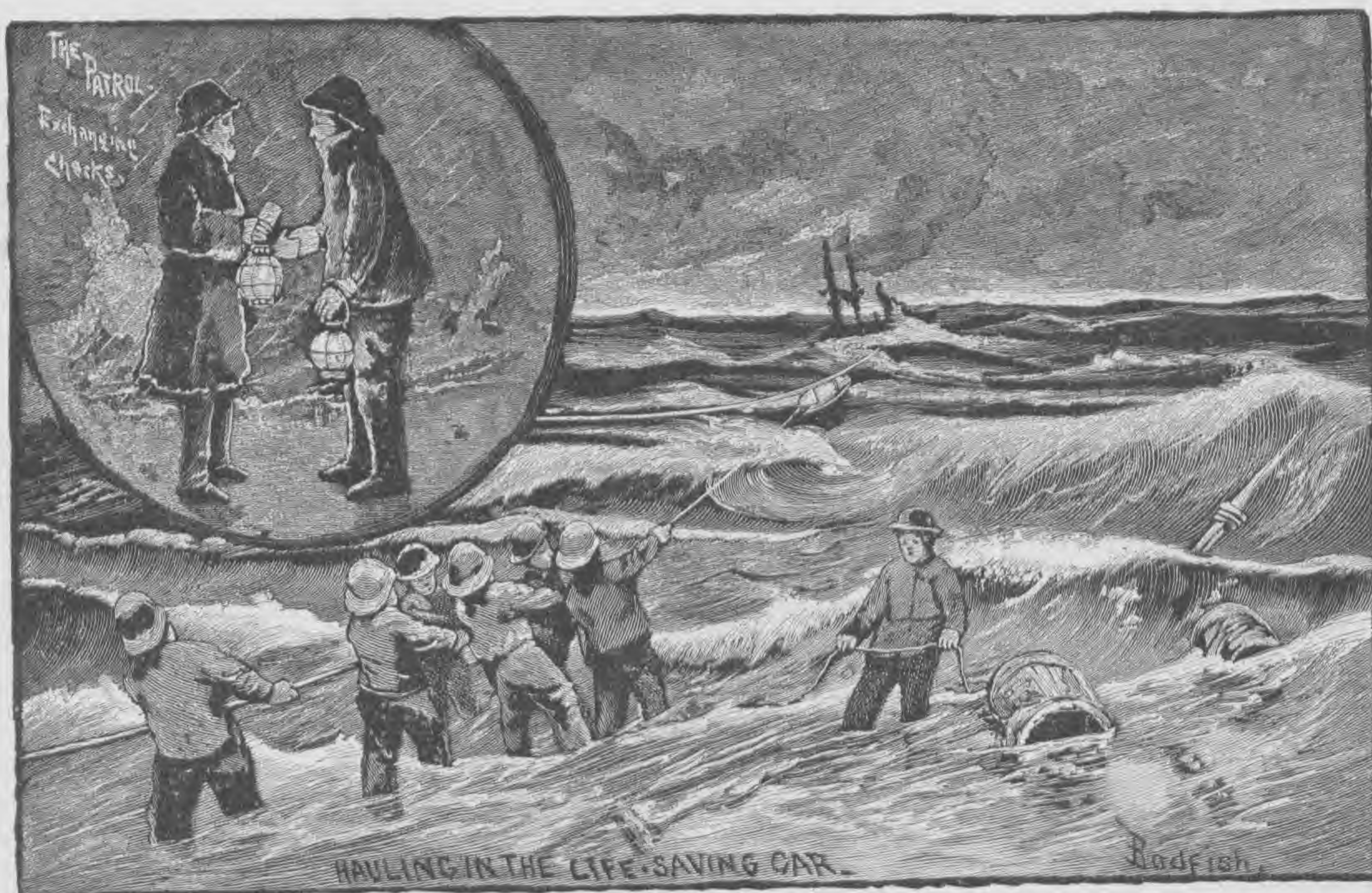
But the ordinary duty of the buoy is to mark the line of inner channels, and by their color they tell on which side of them the pilot must steer.

To keep the buoys all anchored, replace them if lost, or put new ones where needed; to visit the lightships, and carry provisions and letters to their crews; to see that all the lighthouses are in shape, and the various parts of the machinery in good working order, is the duty of an inspector, who has a certain district of coast under his care, and continually travels up and down it in a steamer called a “tender.”

Lighthouses and sirens and buoys and coast surveys are all intended to prevent shipwreck; but, as I have said, the ocean is still supreme. So we add to our precautions arrangements to help those cast away.

Societies to save wrecked persons have existed in China, it is said, for centuries, but in Europe are scarcely over a hundred years old; and the first life-boat was not made until 1784. Those European humane societies, especially in Great Britain, placed life-boats and gears in certain shore towns, and organized crews who promise to go out to the aid of any lost ship, and to take good care of the persons rescued. In America, however, our coasts are so extensive, and so much of the dangerous part of them is far away from any villages, or even farm-houses, that the government was obliged to do anything that was to be done. Thus came about the Life Saving Service, as it is called, which now has its stations close together along our whole sea-coast, and upon

and on the steep Pacific coast is used the very heavy English life-boat, fitted with masts and sails if necessary, and which a steam tug is required to tow to the scene of the wreck, if it is not close in shore. But upon our flat, sandy Atlantic beaches a lighter kind of surf-boat, made of cedar, can only be handled. This is built with air-cases at each end and under the thwarts, so that it cannot sink. The station-men drag it on its low wagon to the scene of its use, unless horses are to be had, and when it is launched, they sit at the six oars, each with his cork belt buckled around him, and his eye fixed on the steersman, who stands in the stern, ready to obey his slightest motion of command, for rowing through the angry waves that dash themselves on a storm-



the great lakes, covering more than ten thousand miles in all.

Each of these stations is a snug house on the beach, tenanted by a keeper and six men, all of whom are chosen for their skill in swimming, and in handling a boat in the surf—something every man who “follows the sea” cannot do.

During all the season, from October till May, two men from each station are incessantly patrolling the beach at night, each walking until he meets the patrolman from the next station. No matter how foul the weather, these watchmen are out until daylight looking for disasters. The moment they discover a vessel ashore, or likely to become disabled, they summon their companions, and hasten to launch their boat. These boats are of two kinds. On the lakes

beaten beach is a matter requiring extraordinary skill and strength. Then, when the vessel is reached, comes another struggle to avoid being struck and crushed by the plunging ship, or the broken spars and rigging pounding about the hull. But skill and caution generally enable the crew to rescue the unfortunate castaways one by one, though frequently several trips must be made, in each one of which every surfman risks his life, and in many a sad case has lost it.

It is a common occurrence, however, that the sea will run so high that no boat could possibly be launched. Then the only possibility of rescue for the crew is by means of a line which shall bridge the space between the ship and the land before the hull falls to pieces. We read in old tales of wrecks of

how some brave seaman would tie a light line around his waist, and dare the dreadful waves, and the more dreadful undertow, to save his comrades. If he got safely upon the beach, he drew a hawser on shore and made it fast. Now we do not ask this; but with a small cannon made for the purpose, a strong cord attached to the cannon-ball is fired over the ship, even though it be several hundred yards distant. Seizing this line as it falls across their vessel, the imperilled sailors haul to them a larger line, called a "whip," which they fasten in a tackle-block in such a way that a still heavier line can be stretched between the wreck and the land, and made fast. Then by means of a small side-line and pulleys a

double canvas bag, shaped like a pair of knee-breeches, is sent back and forth between the ship and the shore, bringing a man each time, until all are saved. Should there be many persons on board, though, and great haste necessary, a small covered metallic boat, called the life-car, is sent out, into which several persons can get at once.

Such are the principal means of saving life practised by the Life Saving Service, and you will believe that they are good in device, and managed with great skill and grand courage, when I tell you that in 1880, out of nearly two thousand persons whose lives were endangered by shipwreck upon the American coasts, all but nine were saved.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

CHAPTER X.

MONEY AND BANKS.

"The State Bank system was a chaos of ruin, in which the business of the country was again and again engulfed. The people rejoice that it has been swept away, and they will not consent to its re-establishment. In its place we have the National Bank System, based on the bonds of the United States, and sharing the safety and credit of the government" — GARFIELD: *Chips from the White-House*, p. 420.

A BANK is a sort of a mill-pond for money. When a natural cascade is not strong enough for turning the mill-wheel, men build a dam, and collect the water which runs from a hundred springs and brooks above, and this water they let down whenever needed, through a gate and a flume, in a little torrent, upon the wheel. All over the land are men who have worked a good many years and saved their money, and now they wish to work less and have their money at interest; for they have more money than they need for their business. They are the springs and brooks from which money is running. There are other men who are young, industrious and enterprising; they have not so much money as their business needs, but can make more profits if some one will lend them money to build stores or factories, buy goods or materials, hire clerks or workmen. Their wheels need a flood to turn them. For this purpose of turning the wheels of business, a few men in some chief town join in forming a bank, to receive the money of those who have more than they are using, and loan it to those who need more than they have.

There are two ways in which money flows into a bank: "stock" and "deposits." When a bank is

formed, each owner contributes such money as he wishes, one ten thousand dollars, another one thousand, another perhaps only five hundred. These sums, added together, form what is called the "capital" of the bank, which is used by the managers in conducting the business. Also business men of the neighborhood usually like to keep part of their money in the bank because it is a safer place than their stores and houses. A bank usually has solid vaults and strong fire-proof safes, for keeping money, and a part of its business is to receive money for people and keep it safely until the owners wish to spend it. The moneys which persons lodge in the bank to be kept for them are called the "deposits," because they are "deposited," that is, left for safe keeping. Whenever they wish to spend any of the money they have deposited, they write a "check," asking the bank to pay so much, and the bank does so. Meantime the capital and the deposits together make a large sum. A small portion must be kept in the drawers for doing business from day to day, but the larger part forms what we may call a mill-pond of money, ready to be loaned to men who need more than they have in their business.

The most common way of letting the money run from the bank's mill-pond upon the merchants' mill-wheels is called "discounting." Often the reason why a merchant needs money is because he has sold goods, but has had to take his pay in notes instead of cash. Ask some grown person to explain to you about taking notes. He does not wish, however, to wait for his money until the notes are paid, therefore he carries them to the bank and asks to have them discounted. A man who has not any notes given him by his cus-

tomers sometimes himself makes a note to be discounted. When a note is brought to a bank for discount, or if the bank has not money to spare, or if the officers are not sure the note will be paid, they say no. Banks have several curious ways, which there is not time to explain, of making sure that the notes they discount will be paid when the time comes. Let us suppose, however, that the officers are willing to discount the note, and that it reads:

For value received, I promise to pay to John Smith, or order,
one thousand dollars, in two months from date.

THOMAS JOHNSON.

The officers will compute two months' interest on one thousand dollars. They learned how to do this from the arithmetic, at school. This ten dollars is the "discount," or the bank's profit, for letting Mr. Smith have the money. The bank lets him have nine hundred and ninety dollars out of its mill-pond; and Mr. Smith writes on the back of the note:

Pay to the Wide Awake Bank, or order.

JOHN SMITH.

and gives the note to the bank officers. The nine hundred and ninety dollars will soon drive the mill-wheel of Mr. Smith's business. When the two months are ended, the bank collects the one thousand dollars from Mr. Johnson, and thus gets back the nine hundred and ninety, with ten additional for "discount" or profit. The discounts or profits are kept together for six months or a year, and then are divided among the stockholders, to pay them for letting the bank have the "capital." If Mr. Johnson should not pay the note promptly, Mr. Smith would be required to pay it. This plan of buying merchants' notes at a small profit is called "discounting," and is a large part of a bank's business.

Whether obtaining discounts is wise or not depends on circumstances. Often it is foolish; merchants frequently fail because they have had their notes discounted and have given a considerable part to the banks and spent the rest unwisely, when, if they had kept the notes and collected them when they became due, they would have had the whole of the money. And banks sometimes fail because the officers are imprudent or dishonest. But there is no doubt it is a good plan to have banks in operation, so that a prudent merchant can obtain discounts when it is really best to do so. If there were no banks, a great many people would have to keep their savings in old stockings, or bureau drawers, or boxes buried in the ground, could get no interest upon it, and very likely it would be stolen; and on the other hand, many merchants would be unable to do business for want of the use of that very money. Banks are excellent things, though they need to be managed honestly, and used prudently.

When a bank is formed, the stockholders, or men who contribute the capital, elect a few "directors" to direct how the business shall be done. These direc-

tors elect a "president," who usually attends at the bank daily to superintend or preside over the management. They also choose a "cashier," who takes care of the notes that are discounted, talks with the customers, writes letters, oversees the accounts and instructs the various clerks in their duties. There are also a "teller" to receive the deposits and to pay the checks; a "bookkeeper" to keep accounts; and a "porter" to go of errands, and lock the banking-house at night. Large banks in the cities have two tellers, one to pay the checks written by persons who have deposited money in the bank, asking for some of it—he is called the paying, or first teller; and one to receive the deposits, called the receiving or second teller; also two or three bookkeepers and clerks, such as a "discount clerk" to keep a list of the notes discounted; also several messengers. A place as "bank messenger" is an excellent one for a boy who is honest, pleasant, industrious, frugal, and shrewd about money; for he has a good opportunity to grow up in the bank, and be chosen assistant bookkeeper, book-keeper, second teller, first teller and cashier in turn, and even president if he is successful in saving money enough to buy shares of stock.

You will wish to know whether banks are under State or national laws. Formerly nearly all banks were under State laws. Some of the States governed them very well, others not so well. About twenty years ago the United States government decided to establish some banks also; and now, when people in any place wish to start a bank, they can do so under the law of the State, or under the United States law, as they please. Banks formed under the United States law are called National Banks; you can always know them by their having the word "national" in the name. These banks have it for a part of their business to issue the bank notes which people use as money. A national bank deposits part of its capital in the Treasury department at Washington, and the Treasury department gives it, in return, a parcel of bank notes. It uses these notes in discounting notes for merchants, and in other business. Almost any grown person can show you a national-bank note. Whenever any one who has a national-bank note desires to do so he can present it to the officers of the bank and demand gold for the sum which the note promises to pay, and they must give it to him. If they will not, there are arrangements by which the note can be sent to Washington, and the gold for it will be paid there out of the capital which the bank deposited there on obtaining the notes. Thus the national-bank notes are perfectly safe. In the whole twenty years no person has ever lost money by failure of a national bank to pay its notes.

XI.

IN WASHINGTON CITY.

"Let any American who can, travel abroad, as I have done, and with the opportunity of witnessing what there is to be seen that I have had, and he will

return to America a better American and a better citizen than when he went away. He will return more in love with his own country." (—GRANT: *Chips from the White-House*, p. 341.)

The Travelling Law-school has now reached Washington City; and, for the first time, is not in any State. We are in the District of Columbia. The wise men who formed the Federal Government feared that if they chose a city within some State to be the capital of the new nation, that State might endeavor to make laws governing what the national officers should do in its city; therefore a district was set apart which should not be in any State, but under the sole control of Congress; and in this district the capital city for the entire country, Washington, has been built. The rule which holds almost everywhere else, that there are three governments, national, State and municipal, does not apply in Washington; here are only two, the national and the city governments. Curiously, because the people of Washington are not in a State, they do not choose a representative in Congress, nor have they a senator, nor can they vote for President.

Washington City is remarkable for its broad and nicely paved streets, and for open parks and circles with ornamental fences and statues or monuments, and for magnificent public buildings. It has not so many fine stores as Boston, New York or Philadelphia. The most interesting sights for a Travelling Law-school are the establishments where the business of the government is done. You already know that most of the business of a State government is managed for the whole State in buildings and offices located in the capital city of the State. Just so, most of the business of the national government is conducted at Washington.

The foremost government building is the Capitol, and it is useful to remember that *capital*, spelled with an *a*) means a city, but *capitol* (spelled with an *o*) means a building where the business of a government is done. The Capitol at Washington is a magnificent white marble edifice at the southerly end of the city, crowned with a dome which can be seen glistening in the sunshine from afar. In this Capitol the two houses of Congress meet to make laws for the nation, just as the Legislature of Massachusetts meets in the State-house at Boston to make laws for the State. The House of Representatives is composed of members chosen by the people all over the land; the Senate is composed of senators chosen two from each State by its legislature. As there are more than three hundred representatives, and only seventy-six senators, the representatives' hall is much the larger; but both halls are spacious and beautifully furnished. The two Houses commence business early in December every winter, and are busy until spring or summer discussing and passing laws; but they can only make laws about those very general, national things which belong to the Federal Government. They must not meddle with the subjects which belong to the State legislatures meeting in the capital cities of the States.

In the Capitol also is the large hall of the Supreme Court, fitted with elegant mahogany furniture. As we enter it we shall find a range of seats in curved form near the doors for visitors. These seats are fenced by a railing, beyond which is a space furnished with tables and chairs and occupied by the lawyers. Beyond this space is a raised "bench," at which the nine judges sit, facing the lawyers. The duty of these judges is to decide questions about the United States laws. If people do not understand the laws of Congress, or will not obey them, a lawsuit is brought, lawyers are employed to state the questions to the judges, and the judges explain the law and decide the case. There are similar courts in all the States; and the Washington judges do not meddle with the questions which belong to the State courts to decide.

In the Capitol are also many other interesting things. A grand library so crowded full of books that one can hardly turn around in it; a magnificent rotunda adorned with paintings of Revolutionary history and surmounted with the dome, from which persons who clamber up the lofty stairs obtain a grand view; a collection of statues; a pair of bronze doors bearing historical pictures of exquisite workmanship; beautiful frescoed halls (where you can buy photographs of almost everything) and stairways, and long, curious passages; many "committee rooms," whither members of Congress go to discuss the new laws they think of making; a room so beautifully finished in all sorts of marble that it is called the "marble room;" also very ingenious machinery and apparatus for heating and lighting, and for pumping fresh air into the rooms.

Toward the other end of the city is the President's house. The formal name for this is the Executive Mansion; but it is commonly called the White-house. It is not modern and elegant like the Capitol, but old-fashioned; it is, however, a very important building. It is here that the President gives the orders necessary to make sure that the laws of Congress will be obeyed. If people far away, east or west, north or south, refuse to obey the Federal laws, information is sent to the White-house, and the President and chief officers—the "secretaries," or "cabinet," as they are called—consider the case and give directions what shall be done. But the secretaries do not take any part in making laws; that duty belongs to Congress and the President. And the President and cabinet do not concern themselves whether people obey State or city laws, but attend only to the national laws. The lower rooms of the White-house are open to visitors, and are attractive, especially the portraits of former Presidents; and the great East room, where the President's famous receptions are given.

The immense amount of business which arises in enforcing the laws of the national government is divided among "departments;" and the buildings allotted to the several departments are interesting. The State department is the office where all the business of the government with foreign countries is man-

aged, under the charge of the Secretary of State. The Treasury department has a fine building near the White-house, where the Secretary of the Treasury manages the moneybusiness of the nation, the collection of duties and taxes and payment of salaries and debts. Here are numerous rooms filled with innumerable clerks busily employed in writing the government's accounts.

And here are to be seen — if we can obtain leave — the printing-presses which make the national bank-notes, the beautiful government bonds, and the treasury notes, and also a banking-room and money-vaults containing immense stores of money of all kinds.

The Post-office department has charge of carrying mails throughout the whole country; for this, being a general subject, is managed at Washington. The States do not meddle with it. The most interesting room is the dead-letter office. Hither are sent all letters whose owners cannot be found; and here is a museum of queer things which have been found in "dead letters."

The Interior department has charge of business all over the country, especially at the West; such as governing the Indians, taking the census of the people, selling lands to immigrants, and giving patents for inventions.

The museum of the Patent office contains models and samples of almost every machine or apparatus; and whoever invents anything new may deposit it here and obtain an exclusive right to make and sell it for seventeen years. The War and Navy departments and department of Justice are less entertaining to visitors, but they are very important.

There is also what is called the department of Agriculture. Its business is to assist the farmers. Suppose in some part of the country all the corn is wilting and dying, and the farmers cannot discover the cause. It would be proper for them to write and send specimens to the department of Agriculture, and some learned man there would study the matter. He would perhaps examine the plants with a powerful microscope, and find that they were infested with a tiny insect. Then he would try experiments till he discovered a cure; and the department would send word to the farmers what to do to save their crops.

There are in Washington many interesting things which have not much connection with government: a Smithsonian Institution which has collected a useful library and museum of natural science; an Army Surgical Museum for showing doctors the ways in which soldiers are wounded in battle and how they may be cured, with the largest library of medical books in the world; two fine conservatories, or nurseries of flowers and plants, one, managed for Congress, not far from the Capitol, the other, managed for the President, at the White-house; the Corcoran Art Gallery of fine paintings; a National Observatory for studying the stars; busy newspaper offices, where news of whatever is done by the public officers is sent to all the great cities. There is no place where in a few weeks' visit an American can learn so much as in Washington that is new and useful. And by a short and pleasant steamboat sail one can reach Mount Vernon, the home of George Washington, the revolutionary commander and first President, for whom the city was named, and there can see the memorials of his life, and visit his grave.

HEALTH AND STRENGTH PAPERS.

XI.—MORE OF KITTY'S CARD WORK.

BY MARY E. ALLEN.

AS Kitty lay resting on the mattress, her mother remarked that she did not *seem* tired.

"She is excited now," I said, "but she will be well tired to-night. I want her to be tired enough to lie on the lounge half the evening from physical weariness. The rest from that kind of exhaustion is a part of the general plan. Before she goes, the tiredness will be spread equally upon every muscle, and the resting will be harmonious and delightful to her."

"I have thought much," she said, "of our conversation about the boat, and have been wondering whether you approved of tennis and croquet."

"All out-of-door games are excellent, if one is prepared for them. They keep girls in the open air,

which counterbalances certain evils. There is one objection, as a means of development, to them all, as played at present. The work is all done with the right hand."

"Is that a serious thing?"

"Does it not seem serious when, for practical purposes, we are one-handed? Have you read Charles Kingsley's *The Coming Man*?—No? Read it, and you will see what a serious matter *he* considers it. As he says, if a child accidentally takes a plaything or knife, or any other tool, in his left hand, as though he meant to keep it there and use it, it is taken out by his mother or teacher, and transferred to the other hand. As a consequence, most of us are extremely awkward with our left hand, and also, consequently, *the left side is dwarfed*. Measurements in most cases show the left side to be smaller than the right. Now the great interest and exhilaration of these games is

the competition; hence, every player must do his *best*, and his right hand alone he is master of, so what is already good is made better, while the poor helpless left hand grows more so. Croquet seems a harmless game, with little exertion in it, and yet I have had a little girl with one shoulder decidedly lower than the other, which her mother attributed to playing croquet. Tennis is open to greater objection in the same points, because it is much more violent. It is so very vigorous a game that beginners work much harder than old players, and there is plenty of scope for over-exertion, which is the objection brought against gymnasiums."

"Do you overcome that objection of one-sided and one-handed development here?" asked Kitty's mother.

"We require *everything* done with each hand. Necessarily, with the light apparatus each hand holds a piece of equal weight; but with the graduated pulley-weights we make the left hand do enough more work to develop it, until it is equal to its mate. Ring-swinging and ladder-work make an equal demand on each hand, and the vault is made both to the right and left. Bowling is delightful exercise, and ought to take in the left hand, and the game be made a powerful engine of grace in action; but, as I said, competition throws games outside the list as harmonious body-developers."

Kitty's five minutes had expired, and she had been perched near listening to us, but evidently impatient to continue her work. "Well, what next?" I asked.

"Pulley-weight again, series D."

"These are all chest-developers," I explained to her mother, "and there are two more in the series which we will take later. Stand with your back to the weights, pull directly to the front, then let the weights draw the arms back as far as they will go, at the same time turning the shoulders backward."

"So?"

"No, your action comes only on the arms, and amounts to little. You do not get the shoulders back. See how nearly horizontally backward your arms go! Now, see mine! See the swell of my chest! See where my shoulder-blades are!"

Kitty looked at me and practised, looked again and practised, until at last she cried triumphantly, "Now it pulls on my chest!"

"The next movement is the same, except that you rise on the toes, which exercises the calf of the leg."

"And what's No. 3 for?" asked Kitty, evidently taking great pride in swelling her chest.

"The same in its action on the chest, but changes that on the arm by turning the hand over. Just that simple action brings other muscles into play. No. 4 is the same again, only rising on the toes."

"What's the last?"

"Turn the hands to the first position, bend the elbows, make a sort of scooping motion forward, then let them back firmly, without a jerk, and all the time keep the lungs as full as possible."

"Just so," said Kitty. "I guess that took in some new muscles."

"And now for the rowing weights," said she; "I've been aching to get at them."

So I stationed her on the sliding seats. "Seat yourself firmly," I said, "then grasp the handle. Hold it close at waist with chest pressed forward; now slide the seat backward and forward, opening and closing the knees."

The second time Kitty came forward she left her seat behind her, and sat down with a laugh on the support. "I *can't* keep on!" she said.

"We all go through that," I said; "you must cling more closely."

"In No. 2, bend the body forward and grasp the handle at the weight, keep the seat firm and draw the weight to the waist, forward and back, until you sit erect."

"I like that," said Kitty, sparkling at me. "What next?"

"Combine Nos. 1 and 2, bend forward and back, and also move the seat. No. 4 is similar to No. 3, except that you lean as far back as you can, then recover, and go as far forward as possible. This is the most vigorous. All these movements act upon both the back and abdominal muscles."

"I feel 'em," said Kitty bravely. "Now where is the wrist-bar?"

"This horizontal bar, by winding which in different ways you lift a weight high toward the wall. These strengthen hand and wrist—give you a good *grip*, that will help you very much in all your gymnasium work, make your piano-practice much easier, and should you ever be caught on a *Narragansett*, or some other disabled vessel, you will be able to cling to ropes until you can reach the boats below, as many, many ladies cannot."

"I am gladdest about the piano just now," said Kitty. "My wrists ache so when I practise, and my fingers are *so* weak!"

"These intermediate exercises, the alternate ones, are for the development of the calf and thigh, and are inserted here as a rest to the hands: The first, rising on the toes; the second, settling back on the heels, raising the toes."

"What fun this spring stand is! It seems as though one could be sent up to the moon, if he were only a little heavier to bear it down more. And it looks like such fun when they vault the bar from it. See me, mother!"

Kitty's mother smiled rather doubtfully, as if she saw in her roused child the possibility of a circus girl.

"*That* will give lightness of action in walking. These rings you swing in by your hands are fine for the muscles of the back and for the spine. Run, and swing as high as you can, touching your feet each time to carry you higher. Then simply hang as long as you can hold. If you like you can put your feet in and swing also." But Kitty was not quite agile enough for this as yet.

"This next," she said, "is just like the other breathing movement."

"No. I want you in this to put your hands under you as you lie on your back—arms down straight, sit on the back of your hands, turn the elbows and shoulders under you as far as possible, and project the chest. Take a full breath, and at the same time press with the elbows and head, and raise the back a little. I always feel as though I am gaining in various ways when I do that."

"*This* is hard work," said Kitty, looking a little disgusted for the first time; "I seem to get my lungs very full of air that way. When do you suppose I *can* use those rings?" she added, as a young girl swung gracefully down the line, seeming almost to fly.

"You must get those biceps muscles in better condition first, and the next weight-work will help the hanging muscles. Now you have reached another resting point." Down went Kitty on the mattress again.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

IX.



THERE are many points of resemblance between the lives of Chopin and Liszt. Each is like a sad poetic story. We have told you the story of Chopin: we will here give you a glimpse of the artist-life of Liszt.

Liszt was born in Hungary, one year later than Chopin

—in 1811. His passion for music was shown in early childhood; he was an extraordinary player on the pianoforte at the age of six; in his ninth year he performed in public before noblemen. At the age of twelve he won his first triumphs in Paris.

His father superintended his education and his concerts. The two went to England, gave concerts there, then returned to Paris, where, at the age of thirteen, Liszt produced an opera.

In 1827, Liszt lost this father, who had been his constant attendant, and to whose wise insight and foresight, to whose loving influence, he owed his successful career. The friendship which many boys seek among their companions, young Liszt had found in his father's society. The two had been inseparable; each lived his best life in the other's affections. They were a beautiful illustration of the highest and best relations between father and son.

Liszt was now sixteen. He became melancholy;

the shadow of grief hung over him continually. Although life held out the most alluring promises, he at last turned to religion. His religious life was full of poetic sentiment, and yielded him gentle and healing consolations.

At this youthful period he became attached to a lady of rank, who seemed to have admired and appreciated his genius. He wished to marry her, but she finally refused him, and he retired wholly from society, and for a time gave up his art. Like Chopin, he turned from the world to the consolations of religion in his sorrows; like him, he returned to music well schooled in the deeper experiences of life.

In 1830, Paganini appeared in Paris. The wonderful playing of this artist aroused Liszt from his melancholy moods. Ambition awoke in his heart again. He said, "I will become the Paganini of the piano."

In 1835 he heard of the triumphs of Thalberg. The resolution awakened by Paganini was strengthened.

Suddenly young Liszt appeared in the salons of Paris as a pianist, and his brilliancy and spiritual power were electrical. Almost immediately musical Paris was at his feet. The musical moods of eight years, the tendencies of religion which had kept him from ruinous courses, the indefatigable practice in hours of solitude, began now to show their fruit. In 1837 he went to Italy. Triumph succeeded triumph; he was everywhere acknowledged to be the Paganini of the piano; his dream became reality.

At Vienna his concerts were the musical themes of the time. He visited Pesth on the invitation of some noblemen, and was there presented with a sword of honor and the rights of citizenship because he had employed his art in favor of the Hungarian cause.

These were happy days, and like the sunny periods that came into the shadows of Chopin's life.

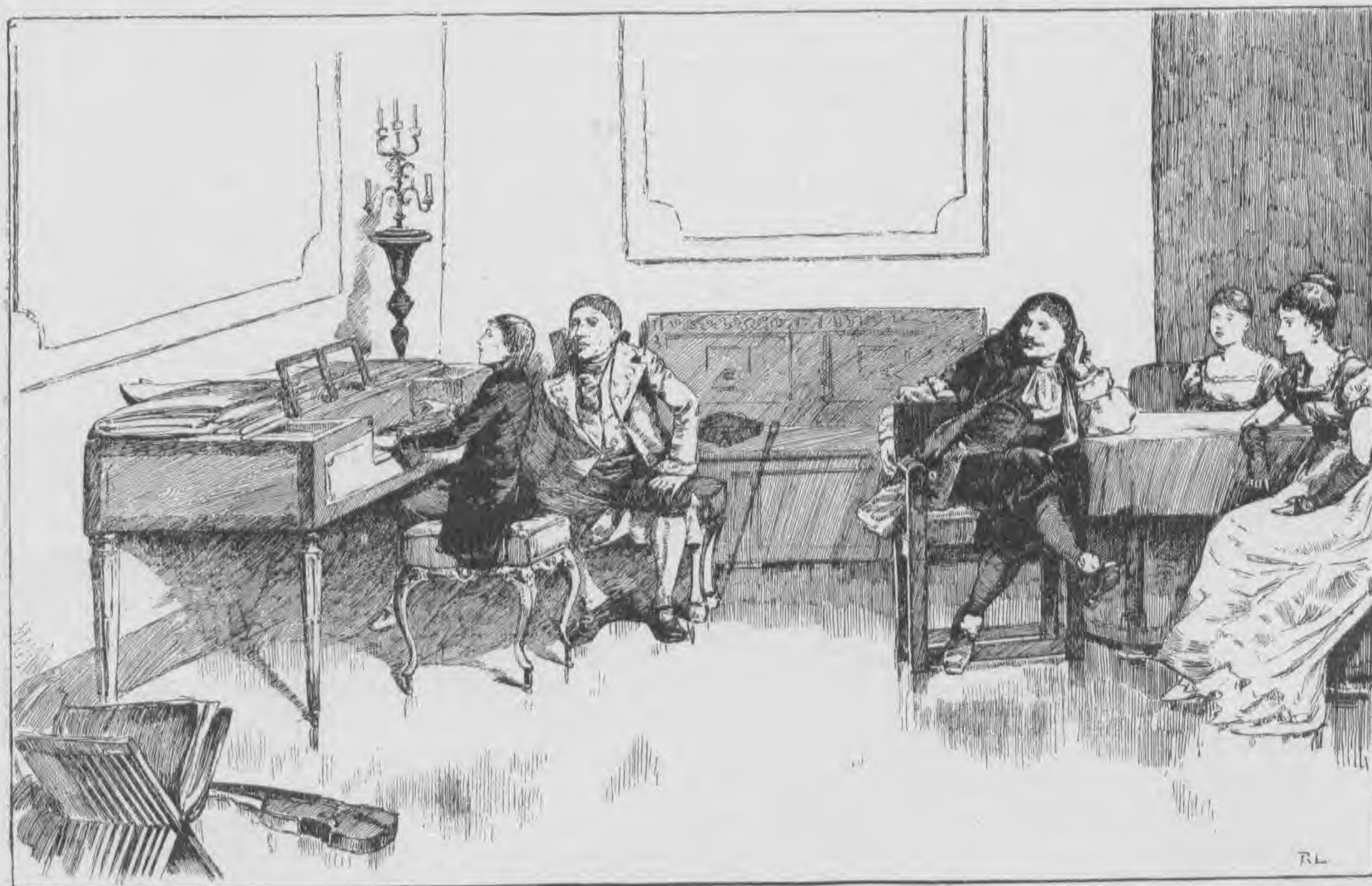
In 1839 an effort was made to raise money for a monument to Beethoven. It seemed about to fail, only 600 francs having been subscribed in six months. Liszt made up the amount necessary, contributing 60,000 francs. A true artist's generosity.

Triumph followed triumph. His pen was constantly at work; the fruits are seen on almost every piano, they are enjoyed in every concert room.

He went to Weimar, the Athens of Germany, and there became the conductor of the court concerts.

bring his thoughts more into harmony with high themes. In 1861 he went to Rome with these impressions upon his mind, and in 1865 he took holy orders, and was there known as the Abbé Liszt.

He loved Pesth, and in 1871 he sold his villa at Rome and removed to the city of the Danube. In 1874, the sixty-third year of his life and the fiftieth of his career as an artist, he gave to Pesth his works of art, and prepared for a life of comparative retirement,



LISZT AT TWELVE. — AT PARIS.

He helped make Weimar a city of musical art, as Goethe and Schiller had made it a very Mecca of German literature. He became the friend of young musicians, among them Richard Wagner.

He had a large, sympathetic heart. He gave instruction to young pianists free; he helped the poor, he lived outside of himself, and the world loved him for what he was, as well as admired him for what he did.

But a time came when Liszt began to feel the triumphs of art of little value except as they could multiply influences for good. He longed for a life that would more withdraw him from the world and

though he is visited by musical pilgrims from all regions of the world, seeking Weimar as a shrine.

His compositions are numbered by the hundred, and belong to all forms of music, from fantasies on the haunting airs of the great operas, to the most original and surprising themes. Boldness, spirituality and a glowing and brilliant fancy characterize them all.

Liszt's *Life of Chopin*, from which is largely gathered the material for the account of that composer, is one of the most poetic and sympathetic biographies in any language. In it one may find reflected Liszt's own sentiments, and clearly see how tender and beautiful was his inner life.



MAGNA CHARTA STORIES.

EDITED BY ARTHUR GILMAN.

XII.—OUT OF THE DARK.

BY THE EDITOR.

SOME cakes burning on a cottage hearth; an angry woman and a dignified man. Such are the features of a picture that the old English chroniclers give of an event that they tell us occurred a thousand years ago. There are reasons that lead historians to think that there were no burnt cakes; but so often has the story been told that we sometimes almost think that we can smell them now!

Do you know who the man was? It was a king, of whom Professor Freeman, the English historian who travelled in our country last winter, says, that "He is the most perfect character in history. He is a singular instance of a prince who has become a hero of romance, has had countless imaginary exploits and imaginary institutions attributed to him, but to whose character romance has done no more than justice, and who appears in exactly the same light in history and in fable. No other man has ever so thoroughly united all the virtues both of the ruler and of the private man. In no other man on record were so many virtues disfigured by so little alloy. A saint without superstition, a scholar without ostentation, a warrior all whose wars were fought in the defence of his country, a conqueror whose laurels were never stained by cruelty, a prince never cast down by adversity, never lifted up by insolence in the hour of triumph — there is no other name in history to compare with his."

Can you now guess whom this is written of? It was not King Arthur of the Round Table, that wonderful hero of whom Tennyson has written such entertaining poems; nor is it King Louis, of France, whose good deeds you will read of in history; nor even the great Charlemagne, who stood so high on the rolls of fame a thousand years ago. It was none of these, but it was King Alfred, of England, who did many more good deeds than can possibly be related in a

short article. In fact, I can tell you little of his deeds in general. I am to show you only how he led his people out of the dark; how he helped them preserve their freedom at a time when some terrible men from the north, from the region of pirates and freebooters, were trying as hard as they could to conquer the English and take their country from them.

When you come to read Mr. Green's interesting book called "The Making of England," you will find that the man who is said to have "made" it was King Egbert, who died in the year 857. His son Ethelwolf reigned after him for a few years, and died, leaving four sons who sat on the throne, one after the other. The youngest of these was Alfred. He had been well brought up by his mother, and he probably remembered the stories that were told of the greatness of his grandfather, who had been chosen king the same year that Charlemagne was chosen emperor, and had been stimulated by the example of that great monarch. The rough men of the north had come to the country during the times of Egbert and his son, and in the time of Alfred they tried it again. They had first come only to plunder the people. They took everything that they could, and sailed away to their own land where they were safe. After a while they began to think that it would be well to live in England. The climate was pleasanter than that of their frozen land. So they came back before Alfred's father died. Some of them did remain and settled in parts of the country, but the number of such was not very great.

While Alfred's brothers were ruling, the northerners came again, and the English were very much troubled by them. They landed and fought at Nottingham in 870. The next year Alfred himself began to fight them. He showed what sort of man he was, and the next year he was made king. For seven years he fought the invaders, with success sometimes and with disaster at others. Then, suddenly, so far as we can now find out, Alfred disappeared. The chroniclers

say that he went into the woods. It was then that the event of the burning of the cakes is said to have occurred. It is a good story. It is said that the king was obliged to get shelter where he could, when he was in the woods, and that at one time he went for this purpose to the home of a cattle-herdsman who knew him. He was disguised, and sat by the great fireplace mending his bow, when the herdsman's wife went out and left him to watch the cakes she had been cooking on the hearth. The king was thinking of affairs of state, probably, and forgot his trust. When the housewife returned, she found her cakes burned, and administered to the king a good scolding, telling him she would warrant he would be ready to eat them, though he was not willing to watch them.

friendly terms with the rough people of the woods. He was getting ready for a great movement. He knew that the northerners were gathering in strong array, intending to conquer the whole of his kingdom, and he was making his plans to strike a bold blow for freedom and his rights. It is said that he could not find out through others how great the army of the invaders was, and that he determined to go to the camp himself to see and be sure. "Seeing is believing," the boys say, or used to say when I was young.

It is said that the king dressed himself in the garb of a minstrel, and wandered off towards the enemy's camp. Minstrels in those days, and for ages afterwards, were very highly prized by the people, and were



KING ALFRED AND THE CAKES.

The scolding words of the herdsman's wife are given thus in the speech of the inhabitants of Somersetshire, where the incident is said to have occurred:

"Ca'sn thee mind the ke-aks, man, an' doossen zee 'em burn?
I'm boun thee's eat 'em vast enough, az zoon az 'tiz the turn."

This story is told by a bishop, and ought to be true, but, as I have said, I am not sure that it is. You will find it repeated in many books. It seems to be true, at least, that at this time the king was hidden away in the forests where the people generally did not see him, from some time in January until the twelfth of May in the year 878. It is not unlikely that he had such adventures as this, and that he mingled on

given many privileges. They not only sang for them, and told them stories, but they made fun for them. They performed tricks, and did other things that, in the days when there were no printed books, served to while away the time of those who had little to do, and to amuse those who were busy.

Well, the story runs, that in the guise of a minstrel, Alfred wandered off to the camp of the Northmen, singing as he went, and was permitted to go where he pleased, until at last he was called to sing before the commander himself. This man's name was Guthrun. Thus Alfred obtained all the information he needed. It was a bold adventure, but he was a bold man.

Now the king was ready for the beginning of his

great effort. He sent trusty messengers throughout the country to tell the people that their loved king was really alive and would lead them to victory or death. It must have seemed to some of them like life from the grave when they heard this message, and perhaps many could scarcely believe the news; but they showed their true spirit by promptly gathering at a place appointed. It was seven weeks after Easter, in the middle of the beautiful month of May.

Success comes not more from knowledge and determination than from skill and tact in the use of means. Alfred showed his tact in this instance by choosing, as the place of meeting, a spot which appealed to the patriotism of the people, and suggested to them the thought that their king was the true holder of the royal power. He told them to come together at a place called "Egbert's Stone," that is now shortened into "Brixton," and gives name to a place in Wiltshire. The name of this place of meeting must have stirred the hearts of the Saxons as they remembered the great Bretwalda, Egbert, the first of the kings of England, and thought that it was his grandson who now called them together. History tells us that they gathered around their king "with a rapture that cast away fear and doubt."

The third day after the gathering of the host, the shock of battle came, at a place called "Ethendune," or Edendune. The northerners came out of their fortress to face the host that had so suddenly appeared before them, but they were met by the English with determination, and were put to flight. They were slaughtered in great numbers before reaching a place of safety. Then they shut themselves up. The

English came together in still larger numbers and surrounded the fortress so that no provisions could get into it. After two weeks Guthrun was obliged to give up. He was treated by King Alfred much better than he probably expected. A treaty was made with him, under which he and all his men were allowed to remain in England on condition that they would give up their paganism and be baptised as members of the Christian Church. They were not allowed to be soldiers, but, if they would live in peace with the other inhabitants, Alfred had no objection to their remaining on the island; in fact, I think he preferred to have them, as they would help to make a strong nation and to protect the whole body from other enemies who might arise. The ceremony of baptism was performed, and the treaty signed at Wedmore, which was a royal residence, peace was restored, and Alfred was king of all England south of the Thames, with London as his capital.

Thus the foundation of the new kingdom of England was laid. I wish I could recount for you the deeds of Alfred after his time, but they fall into another chapter of history. I was to tell you merely of the great struggle, and how it fell out. There is a book about Alfred's life by Mr. Thomas Hughes, in which I think you would be interested. It was published in Boston a few years ago. One of Jacob Abbott's histories has Alfred for its subject, and most people like to read what he wrote. Bishop Asser's old life of Alfred is published as one of the "Bohn" Antiquarian Library, and there is a life more thorough than any of these by a German, Dr. Pauli, which has been translated into English.

DOOR-YARD FOLKS.

BY AMANDA B. HARRIS.

XI.

SUGGESTIONS.

I ONCE heard a highly educated and sensible lady say, "I have just been reading a very interesting book called *A Tour round my Garden*, and the author saw so much that I thought I would go right out and make a tour round my garden, and so I did; but I could not see anything."

Now her garden was what you would call a doorway, a little plot of grassy ground where grew a few vines and fruit-trees, to which came many birds, building nests of various styles, and rearing little families which were sent forth into the world. In-

sects were busy there through the summer days; many a gayly colored butterfly and brown moth, occupied about something; earth-worms engaged in pulverizing the soil; spiders making the loveliest kinds of lace; bees gathering honey; innumerable colonies of extremely hard-working ants who were always excavating or building, fetching or carrying, conducting some enterprise of tremendous importance, regulating their extensive commissary department, or transacting public business with more system than the cabinet ministers practise — these are but a few out of the small population dwelling within that enclosure. Besides these there was a class which may be said to occupy a kind of intermediate space in the animal kingdom between the

above small-fry and some larger creatures. Thus bats and lady-birds flitted about at dusk of the warm evenings such as there were then, and a bat is, of all nondescript things, one whose doings it is well worth while to look into; while the lady-bird deserves a little attention, if only on account of her name. Toads came forth to the gravel walk along which a snail might sometimes be seen making a journey by slow stages in a coach of his own, warranted to protect him in all weather. Even frogs liked to come thither from a marsh just outside the town; and there was an "ancient mariner" of a tree-toad who was notorious for the long, monotonous "yarns" he would spin all about the weather, and doleful weather too. He was as prompt in his predictions as the Signal Service Bureau, and more reliable than Vennor. *His* acquaintance was certainly worth cultivating.

In truth, I think these small folks are all worth knowing intimately. Now there are the ants. Their ways are baffling to me. It is easier to read human nature than for one who has not studied into the subject, to know what ants are about. They have great wisdom and foresight; they live by rule; and there is, as I understand, a reason for everything they do. Just outside of my window there is a pine tree, from whose trunk fine drops of turpentine ooze in the summer days; but what is that to the ants? Precisely this: from morning till night on certain days, the ants which live in colonies at the foot are constantly travelling up and down. They go up in desperate haste, and descend with the momentum of boys sliding down a steep hill. Some of those going up stop long enough to touch noses with some that are coming down, and then on they go about their business, each his own way. But all do not do this; and no ant does it but to one. Probably Mrs. Treat could tell what it means, but *I* can't. I have watched them by the hour, between whiles of reading or sewing, and I am as much in the dark as ever.

What they go up the tree-trunk after is more than I know; and how do they speed along so trippingly without getting stuck fast in the turpentine, which is like tiny rivulets stiffened to the most available sticking point? *Do* they touch noses? and if so, is it a sort of fraternal kiss, such as some primitive nations practise? or are they passing a choice morsel of food from one mouth to another? Greatest mystery of all, why does no ant do this to but one, giving all the others a wide passage? I have wondered what a powerful magnifying glass would do towards settling this inexplicable problem. Meanwhile, I await information.

There is another little worker who makes me feel

my limitations; and that is a spider. The performances habitual to him as he swings himself across a chasm, or drops from some height, held only by the filmy thread spinning out of himself, or walks on that same thread as on a suspension bridge, are beyond the power of any acrobat to imitate.

It is fortunate for us ordinary lookers-on, that there have been and are persons like White and Darwin, and Sir John Lubbock and the Bucklands, who were born with a taste for natural studies, and who so ardently investigated, so lovingly and patiently observed. Not all can be like these scientific men; but any eye can be trained to see. And the days have come when it is thought that the old ways of learning by rote from text-books are far from being enough. Boys and girls are being advised and urged, more than ever before, to see and learn and judge for themselves. The Kindergartens and the Quincy schools would recommend that young people make the best possible use of their own faculties.

The eye that is trained to observe, soon becomes as skilled as the ear of a musician; and the knowledge which comes in this way is of a kind that will be found always available. It may be obtained outside of schools, anywhere, everywhere. It costs nothing, and stays by one to the last, and is a perpetual pleasure. Some of the happiest persons in the world have been naturalists.

I have hardly made a beginning on the long list of creatures, great and small, walking or flying or creeping, which belong to some door-yards, or may sometimes come to one in rarely exceptional cases. I have left out all but one of the domestic animals. Then there is the bird world. What an amount of matter might be accumulated about those winged visitors who never fail us the year round! What histories, too, of insect life are enacted right under our eyes!

The lady who made the circuit of her garden, and then rested and meditated on the matter, was in the very midst of great activities without knowing it. The air was full of the whirring of tiny wings and the fine, thin whistles and chirps of a myriad of small voices, and there was as much life going on down in the turf and up in the tree-tops as if it was a town full of men, women and children; but she did not find it out.

That proves just the difference between two persons who go over the same ground—one sees and the other does not. Thoreau, in her place, would have enjoyed and seen more than some people do in making the tour of Europe; and Mrs. Treat would have made a narrative out of the expeditions and battles of the ants which would have been as good as a story-book.

OLD OCEAN.

BY ERNEST INGERSOLL.

X.

LIFE UNDER THE WAVES.

THE ocean was the home of the first living thing that appeared on our planet, either of plant or animal; sea-weeds and salt-water animals are found in much older rocks than any that contain the fossils of land life. Moreover, though called a "wide waste of waters," and seeming a complete desert as we gaze upon its restless surface on a dull morning, there are a greater number of animals and plants by count, and quite as large a variety, under the waves as above them, and the bottom of the sea — at any rate near its margin — is more populous than the most haunted bit of woods you ever saw.

Sea-weeds grow in all latitudes, even close to the pole, but mainly along the shore, for below the depth of about one hundred fathoms none but microscopic forms are known. These latter float about, of course, and many of them have been thought to be animals because they seem able to move at their own will. They come to the surface as well as haunt the depths; and the Red Sea takes its name from the fact that a minute carmine-tinted alga occasionally comes to the surface in throngs so dense and wide as to tinge the water for miles in extent. The same thing occurs in the Pacific, where the sailors call it "sea-sawdust."

The proper home of the sea-weed, however, is a rocky shore between tide-marks or just below them, and it is because the eastern coast of the United States is rather poor in rocks — at least south of Cape Cod — that we are poor in algæ, compared with other regions. The sea-weed has no roots, and only clings to the rock for support; shifting sand therefore would not hold it, and there are great sandy deserts under the ocean, bare of algæ, just as some land regions are sandy deserts naked of terrestrial plants.

It often happens, however, that masses of weed will be torn away from their moorings and set adrift. This does not necessarily kill them, and they go on flourishing while afloat. This is supposed to be the origin of those great areas of "gulf-weed" vegetation in mid-ocean called "Sargasso seas." You will remember that a branch of the Gulf Stream, striking over towards the Moorish coast of Africa, is turned southward there, and sweeps down to the equator, then westward again. This surrounds a broad region in the middle Atlantic whose only currents go round and round like a slow whirlpool; and

it is here that the gulf-weed concentrates in masses which are sometimes dense enough to impede a ship — Columbus reported among the wonders of his first voyage the trouble he had sailing through it — and covers an area, between the Azores and the Bahamas, as large as the Mississippi valley. This is the Sargasso sea ordinarily referred to in books, but it is not the only one. A thousand miles west of San Francisco there is a similar collection of floating plants; and others exist elsewhere in the southern oceans.

These floating meadows, as it were, are chosen as the abode of a long list of animals that rarely quit the safety and plenty of their precincts. Among these are innumerable pretty jelly-fishes, sea-worms, and mollusks without shells, which cling to the buoyant plants, and perhaps feed solely upon them. Here is to be had in abundance the fairy-like, rare pteropods, the richly purple janthinas with their curious rafts of eggs, and no end of small crabs. Here a small fish, something like a perch, spends his whole time building a nest like a bird's in the tangled weed-masses, and carefully guarding his treasures against the large marauding fishes which haunt the vicinity to the dread of its peaceful inhabitants; and here those far-flying birds, the wandering albatross and the petrels, hover about in search of something to capture and eat. The Sargasso sea is an extremely interesting part of the ocean, except to the luckless sailor becalmed and balked in its midst.

In favorable places a surprising variety of sea-weeds can be picked out, and books exist by which you may learn the method of classification and names of the different species. The chief of these books for America is Harvey's work, published by the Smithsonian Institution. Not only in the shape and colors of the *fronds* (as the leaf-like expansions or branching tufts of the stem are called), but in size, sea-weeds differ greatly among themselves, from the many diminutive sorts to the cable-like growths of California, which would measure a quarter of a mile in length if stretched out.

Algæ, as I have said, constitute, with very few exceptions, the whole vegetation of the salt water together with a large part of the vegetation in fresh water; and they serve the same useful purpose there that land-plants do for the dry parts of the globe, continually making and throwing off the oxygen which is necessary to keep the water as well as the air pure. To this end they do a very important work.

This is not the whole of their service in ocean matters, however. I think it can be said that if it

were not for sea-weeds animals could not live in the ocean, as truthfully as that if it were not for herbage no animals would be able to exist on land. Sea-weeds are fed upon directly by all sorts of salt-water life, from mollusks as big as your thumb to turtles the size of a dining-table, and they make a shelter for thousands of little fellows who never leave their shadow.

But this is a small part of the story. The diatoms, and other minute plants like them, form the main portion, if not all the food of a large number of sponges, polyps, mollusks and other stationary sluggish creatures, that otherwise, so far as I see, would not be able to live at all. These, in turn, are fed upon by larger predaceous animals. Thus, though the fishes and cetaceans* may never bite a sea-weed themselves, they look for food to creatures that do. We may

was broken up like stone before being sold.

In those days, kelp was the only source of the valuable alkali soda needed in manufacturing glass and soap. Then a French chemist discovered how to make such soda out of common salt, and the kelp ovens were abandoned, except a few in Scotland, supplying the demand for iodine. Iodine forms a part of all sea-water and sea-weeds, and is used in photography and in medicine. It is a curious fact that barbarous people have long chewed sea-weeds as a remedy in the very diseases for which physicians now prescribe the iodine extracted from those plants. Iodine is a violet dye, too, and the bluish and purple tints of many algæ, shells and sea animals appears to be due to the presence of this element.

Sea-weed and eel-grass are collected in great quan-



say then that the algæ form the basis of all ocean life.

Men have been able to make marine plants of service to them also. This was more true in former years than now. During the last century, for example, the kelp trade was the one great industry of the islands at the northern end of Scotland, employing thousands of persons, and paying vast revenues to the lordly owners of the shores. Kelp was the ashes of sea-weed which was burned in kilns of stone and brick, clouding the air with huge volumes of strongly odorous smoke. The slow burning of the sea-weed left the ashes fused into a solid mass, which

ties by farmers who live alongshore in all corners of the world, as a fertilizer, especially for fruit trees. It forms an extremely good manure, because in it there is so much of the soda and lime which all plants consume; indeed, there is a kind of sea-weed growing at great depths, looking much like a coral, and called the nullipore, which takes up so much lime from the water that its substance becomes almost like stone, so that the plant retains its shape and full size when dried. Some of these nullipores are beautifully fan-shaped, scarlet or pink, and are often seen in museums, marked *Corallines*.

Cattle and horses that have been accustomed to rough pastures, like the Scotch and Irish moors, eat sea-weed and thrive on it, especially as winter fodder,

* I dislike a long word like this, but there is no easier English word to cover the whales, porpoises, seals, and others of the group of marine mammals called *Cetacea*.

and from several species are derived dishes for our own tables. The Irish moss, or carrageen—which is not a moss at all, but a sea-weed—is the most important of these, and grows on both sides of the northern Atlantic. In England the market supply comes chiefly from the western coast of Ireland, while Massachusetts Bay gives America all that is wanted. The little port of Scituate, Mass., is the chief point of supply, where, last year, over 400,000 pounds were gathered. In early June, two or three hundred men and women go to the rocks at low tide and pick off the small brown plants, each man getting about a barrel in one day's work. When the tide rises, the people get into small boats and pull up the moss with rakes.

The moss gathered each day is taken to the beach, where a gravelly space has been prepared, and is spread out to lie bleaching during all of the next day, when it is taken up, washed in tubs and again spread out. This washing and drying in the sun is continued for seven days, by which time it has bleached to a yellowish white. Should a shower come, the moss is heaped up and covered with canvas to protect it from injury.

Other species besides the Irish moss serve as food in Europe, generally in a raw state, often proving the only salty relish which the Irish peasant has to eat with his potatoes. One of these is the *dulse* of the Scotch, and the *dillisk* of Ireland, which also abounds

in the Mediterranean, and is there made into a soup. The natives of the South Sea Islands eat algæ, which are extraordinarily abundant and varied in Oriental latitudes; and the poor among the Japanese and in the interior of China, where the weed is sent dried, prize it especially, because it has a sea flavor and saves salt, which with them is a costly luxury. These people mix it with vegetables and other materials, and form thick, delicious soups and dressings. A peculiarly bad-smelling sauce, prepared from sea-weed, is among the edibles China sends to Europe as a condiment.

Along the shores from Japan to Malaga grows an alga which the natives of those coasts dry and keep as long as they please. When the substance is wanted they steep some of the dried pieces in hot water, where the weed dissolves, and then, having been taken off the fire, stiffens into glue, said to be the strongest cement in the world.

A kind of false isinglass, also, is a product of the Eastern sea-weeds, and not only helps the Chinese baker to make his pastry and confectionery, but it serves to varnish and glue thin paper and to stiffen light and transparent gauzes of fine silk used in making screens, fans, hangings, etc., so that painters can decorate them. With a poorer quality the bamboo stretchers of paper umbrellas, lanterns and various toys are smeared to give them hard and polished surfaces. In China and Japan the sea-weed is not raked, but caught by simple machines as the tide drifts it in.

THE TRAVELLING LAW-SCHOOL.

BY BENJAMIN VAUGHAN ABBOTT.

XII.

CHOOSING OFFICERS.

"Sometimes it is said that man cannot be trusted with the government of himself. Can he then be trusted with the government of others? Or have we found angels in the form of kings to govern him? Let history answer the question." — JEFFERSON: *Chips from the White-House*, p. 109.

VERY different ideas have prevailed in different countries upon the best way of forming a government and choosing rulers. The American idea is to have the government planned by wise men whom the people choose for that express purpose, and to have the chief officers chosen by the people.

Another idea has been that rulers are ordained by Almighty God—or, as is sometimes said, that kings rule by "divine right"—and that they should enforce the laws of God found in the Bible. Some rulers have become such by what may be called "the right

of the strongest:" an able general has organized a powerful army, conquered the country, and proclaimed himself king or emperor, and the people have submitted rather than contend with the army. As ancient military kings generally made arrangements to have their sons succeed them, there arose an idea that royal power should be inherited as property is. Many persons believe that government ought to be managed by the wisest and best men of the country; which would be an excellent plan if there were any certain way of knowing who are the wisest and best. The plan of electing rulers gives the people opportunity to choose their wisest and best men if they will take the pains to do so. In this country, although the people do not vote for nearly all officers, they vote for so many, and those who are elected understand so well the necessity of doing as the people wish in appointing others, that, practically, the government is organized and the officers are selected chiefly accord-

ing to the popular wish. This plan would perhaps not be so good for other nations as the modes they adopt, but it pleases the Americans. The wisest and best men are not always chosen; but the people obey so much more willingly the officers whom they have elected, and the laws passed by their representatives, that governing is simpler, easier and cheaper than it could be under the strongest men or than it might be under the wisest and best.

Thus in this country the President is chosen almost directly by the people; and they can choose one every four years. The Governors of States are chosen by the people, and so are representatives in Congress and members of both houses of State legislatures; and their terms are short — mostly two years. Judges, in many States, and in all, chief officers of various kinds, are chosen by the people. The choosing is done at elections; the grown men come each with a little folded paper called his "ballot," in which is written (so that no one can see unless the voter chooses to show it) the names of the officers he prefers; these ballots are dropped in a box called the "ballot box," and are afterwards counted; and the men whose names appear on the most ballots become the officers, for they are the ones preferred by the most voters.

The system, to be sure, does not include senators of the United States, who are chosen by the State legislatures; or judges and chief officers of the United States, and those of some States, who are appointed by the President, or the Governors. And a voter cannot always vote for the man he prefers: he has to choose among those nominated by a "caucus," or "convention;" but in one way or another the people exercise indirectly a powerful influence over the choice of officers whom they do not elect. Indeed, the form of choosing a president is that the people in the various States elect a few of their wisest and best men, called "electors," to meet and choose a president; but really the people make the choice, and the electors merely vote for the man whom they believe the people of their State prefer.

If we should visit foreign countries and examine their governments, we should find that this idea of a choice of rulers by the people is steadily winning favor, especially in the most intelligent and prosperous nations. In England, anciently, some kings claimed to reign by divine right, others by conquest. But in modern times the crown is "inherited." Victoria became queen by right of birth, and, when she dies, her eldest son will be king; not because he is better qualified than any one else to rule, but because (in England) it is thought right that his mother's rank and authority, like her money or lands, should descend to him. But at this day the English people have more real power than the queen. In Parliament, as in Congress, there are two houses; and it is true that the members of the House of Lords, which resembles our Senate, are not chosen, but inherit their rank from their fathers; but the House of Commons, which resembles our House of Representatives, is

chosen by popular election, and it is this house which controls all the money, and holds the chief power. The queen cannot do anything of consequence in the government. She can only choose some member of Parliament to be her Prime Minister; he, like our President, appoints a cabinet; and the Prime Minister and cabinet decide what shall be done. The orders are given in the queen's name, and she signs many of the more important papers, holds a very elevated rank, and is allowed a large income; but the real governing is done chiefly by the men whom the people choose for the House of Commons, or those whom the Commons are willing to sustain in the cabinet.

England has not a written constitution, but its government proceeds according to laws of Parliament and old customs; hence the growth of the people's right to choose rulers has been gradual, though steady. In France and in Germany the governments were formed anew about twelve years ago, and popular rights were introduced distinctly. France is a republic, organized by a written constitution. The country is divided into departments resembling our States, and they manage local matters, while the Republic governs affairs of general interest. This resembles the American plan. In France, however, the general government establishes a religion and maintains a system of education, an extensive police force and a burdensome army, and controls the newspapers; while in America such matters are either governed by the States or let alone.

The chief officer of France is a President chosen for seven years, not by the people, but by the National Assembly. This is as if Congress chose our President; for the National Assembly answers to Congress. It has two houses, a Chamber of Deputies, like the House of Representatives, except that it is about half as large again, and a Senate which is almost four times as large as the Senate at Washington. The deputies are chosen by popular vote in the departments, one for each *arrondissement*, much as our representatives are chosen throughout the States, one in each congressional district. Senators hold office for life, instead of for six years as in this country. The mode of choosing them is perplexing. Besides the National Assembly, there is a Council of State, which assists either house in framing laws wisely and carefully, and gives advice upon any questions or proposed decrees submitted by the President. There is no similar body in England or in our Federal government. The President has the co-operation of ministers of State in the performance of his duties, but their offices are not called "departments," as at Washington. In France a department is a division of the country. Each department has its General Council resembling a State Legislature. The members of a General Council are chosen by the people, but choose their own presiding officers, as is done in our legislatures. The *préfet* of a department, who corresponds to a governor, is appointed; but mayors are elected by the various municipal councils.

The German empire has been formed by a number

of kingdoms which have retained their power to manage local affairs, uniting by a written Constitution under an Imperial government which manages general subjects, such as citizenship, passports, commerce and duties on imports, coinage, paper money and banking, patents and copyrights, railways, post-offices and telegraphs, etc.

The general laws are made by a Federal Council, much like our Senate, but somewhat smaller (its members are appointed by the kingdoms which they represent, and all the delegates from one kingdom cast their votes as a unit), co-operating with an Impe-

rial Diet, much like our House of Representatives, but somewhat larger (its members are chosen by the people throughout the empire). There is no election of President; whoever is King of Prussia for the time being is President of the German Empire — German Emperor, he is called. This is as if the governor of some chief State were always to be President of the United States. In Switzerland also, as was explained in the first lesson to the Travelling Law-school, the people have a large share in choosing rulers. And it is probable that this principle of popular elections will grow and extend in time to come.

HEALTH AND STRENGTH PAPERS.

XII.—LAST GLANCES AT KITTY.

BY MARY E. ALLEN.

NOW for some more 'bread and butter' work," I said, going to the pulleys again after the rest, and a moment's walking and running. "This series, A, takes in single movements for each hand. No. 1, stand with your right side to weight, and pull with stiff elbow toward the left by the front; No. 2, by the back; No. 3 alternates the two movements; Nos. 4, 5 and 6 are the same movements with the left hand."

"What for?" said Kitty.

"No. 1 strengthens the pectoral muscle. Put your hand just under your arm in front. Do you feel the swelling? No. 2 does the same for the muscle at the back — just under the arm you feel it. Those are muscles used in climbing and in hanging on."

"Series B, I have had before."

"Only the first movements. In No. 5, you pull both strongly to the back by the side, swelling the chest well forward — that helps the back away down. Put your fingers just below the bottom of my waist. Do you feel the working of the muscle? That spot is just where so many girls ache. 'Tis frequently merely muscular; though when more serious the pain is caused by weakness of internal organs. This movement relieves it if muscular, and strengthens if more serious. No. 7: pull as near to the floor as you can without bending the knees. You cannot quite touch the floor? Well, don't try too hard for it, or you may be very lame. Only two more movements now, and then I am going to send you home. Tomorrow I will sit by and see how much you remember. The 'L. P. W.' is this pulley so near the floor. The first movements develop the leg muscles, but, as I want to work, for a while, more particularly upon your chest, I have omitted them for the present. No. 3: lie flat on your back on this cushion, grasp the handle

at arms' length over the head, and draw the handle to the vertical over the head; at the same time take a full breath. See, now, how finely the ribs are raised by that position of the hands, so that the air inhaled can act upon the flexible, boneless part of the body. No. 4: leave the handle, press the hands firmly against the sides and take a long deep breath, pushing the sides out hard against the hands — hold it as long as possible, then exhaust slowly. Repeat as many times as your card indicates. No. 5: place this toe-piece on the floor, put the toes through the strap, pull on the toes and raise the body to the vertical."

"Oh, I've done *that* hundreds of times," said Kitty; "don't need the toe-strap. See here!" and up she came.

"Yes, almost anybody can do so," I said, "and little good has been accomplished by such doing. Now notice me, Kitty!" I lay down, held my body *perfectly stiff, and rose, my head being the last to leave the mat.* Then I rolled up, lifting my head first, as she did. "Do you see the difference?" She thought she did; and when she tried it in my way, she was sure of a very great difference. Putting her hands on her abdomen she felt the great tightening of the muscle. "And that's where you need help," I said. "You are too soft and flabby, and the muscles do not support the ligaments of organs attached to them. No. 6: swing the toes out from the strap and raise both legs to the vertical. That is another way of strengthening the same parts."

"H. P. W." said Kitty, with a long breath, and looking about: "don't that mean that machine with the high pulley?"

"Yes, the 'giant pulley.' The movements with it strengthen the back and all the muscles about the waist. No. 1: stand firmly, facing the weight, with stiff elbow pull as low as the waist, then well over the head. That helps the lower part of the back — what people call the 'small of the back.' The next movement is similar, only you touch the floor, if possible,

without bending the knees, then recover and pull over the head. You will feel that movement on the back of the thigh."

"What lots of different movements!" exclaimed Kitty; "must be as many as there are muscles."

"Nos. 3 and 4 are similar movements, only the back is turned to the weight."

"I don't see what difference that makes," said Kitty, "if you're doing the same thing."

"See! facing it, I am pulling the weight over my head, exercising back muscles; backing it, the weight is pulling *me*, and the front muscles are working."

"Oh, yes!" said Kitty. "What a network of muscles! I never thought there was any muscle to speak of, except on a boy's forearm."

"Now we have reached the end of the card. After your rest, go into your dressing-room, take a quick sponging down, and rub yourself with a coarse towel. That will take off the perspiration, close the pores, and prevent your taking cold."

"Cold water when she is so heated?" asked the mother anxiously.

"You need *never* fear cold water when the blood is flowing freely to every part, as with my young gymnasts at the close of lessons. Much waste matter has passed off through the pores, and they should now be contracted. I should not advocate a plunge bath, though I believe many men take one after exercise."

"I have never allowed Kitty a full bath of cold water," said she.

"And she is not subject to colds?"

"Oh, very! I have always had to watch her. She takes cold at a breath."

"I wish you would try a cold chest-bath every day for a month. I think you will find a change in this matter of catching cold."

"I may," she said with a laugh; "you and Dr. Safford are upsetting all my notions of advisability and unadvisability. I don't know *what* I may end in doing."

Kitty seemed in good condition when she came next day, and went through her work laughing at her many mistakes gleefully; her hands were white, soft and warm, and her cheeks pink, before she went home again.

She is one of my most persistent little workers, and seems to feel how much power health is to give her in her studies, and in everything she may wish to undertake all through life. Her mother has not to prepare some dainty to tempt her to eat—she "likes everything." In two months she gained almost as much as another little girl who came to me in March, hollow-chested, white-lipped, with no life or energy; she gained sixteen pounds before our closing time, the first of June, added another ten pounds during the summer, expanded her chest, hardened her flesh, and has been one of my jolliest workers all winter.

One day in January after two months or more of hard, faithful individual work, I gave way before Kitty's wistful eyes and put her in a "class."

"And what did she do in 'class'?" I hear some reader say. She must be far from Boston or she would have been to see. I must tell her, for the "class" have a jolly time.

There goes the piano—do you see the scampering? 'Twas the signal for the lesson to begin, and many had hurried into their costumes to have some fun in the hall before regular work. Out they go now into the ante-room, and when the music of a march begins, in they come again, sedately, each making a curtesy or bow in passing the teacher. Each finds an appointed place on the floor and takes position: heels together, hips back, chest well to the front, chin brought in, hands on the hips. Then the piano strikes up and a series of movements similar to those given in the October "Health and Strength Paper" is quickly executed, taking about four minutes. Now they are fairly awake, the blood circulating freely, and they have gained a certain amount of precision which is another valuable feature of class gymnastics—the ability to perform a certain act strictly in time—the mind and muscle learning to act simultaneously, a most valuable acquirement and one which is to be felt all through the mental and social action of after-life. Now the player strikes into a bright march, and by two quick movements the whole class has formed into two or three lines, and, beginning the march, soon come into one long line. Now follow various manœuvres to help in walking gracefully and lightly. Now they are on their toes, now on their heels; now on one toe and the other heel; then they reverse the latter; now they walk stooping low, with spines erect; now they walk like high-stepping horses; this changes to a hop on one foot four times, then on the other, then twice. Soon the music changes to a slow time, and each step is thoughtfully taken with the toe touching the floor strongly first, so that they will learn to avoid the bad habit of striking the heel so heavily. Following this comes the order to "run with mouths closed," and away they go! Then they come again into place with iron dumb-bells.

"Dumb-bells for girls? What do they weigh?"

Two and three pounds. The weak-wristed use light wooden ones. These movements are slow and measured, and when the bells are returned to place, "Rest!" is the order, and they throw themselves at full length on the mats, or sit in groups. Vaulting is next in order—here they come over the bar like so many sheep. Now they take the spring-board—see how high they fly! Yes, that little girl clears five feet, and descends lightly on the mat below. That gives her courage, both of body and mind, spring, elasticity, strength of arm and *grip*, and helps her to carry herself lightly in walking.

Again the piano signal. We have a quick exercise in wooden bells, or later in the year in clubs, the movements with which are beautiful as a spectacle, and so valuable as exercise. Then perhaps a series of weight-work executed to music; or, if there is not time, the order to "Play!" is given. Now there is no

hesitation; each gymnast springs for the piece of apparatus liked best. The ladders swarm with them, walking on hands up verticals, down inclines, across horizontals, swinging on bars, shinning to the top of the hall, climbing ropes, walking the parallel-bars, throwing light balls, circling the bar, swinging down the line of rings—there go two girls together, down the rings, back to back, and breast to breast. Isn't that graceful and pretty? There! one has lost the ring, and they quietly separate, each going her own way. Now they follow each other, six or eight of them, down the line, dropping at the end. This, perhaps, is followed by a brisk, competitive game with bean-bags; and a double march down the sides of the hall, forming into fours in the middle with skipping and fancy steps, closes the lesson, and the good-

by and curtesy send them all into the dressing-rooms for sponging and street dress.

More than one mother has stood by to acquaint herself with it all. Kitty's mother has looked on with bright eyes. One enthusiastic woman says, "The State should establish the gymnasium alongside the public school."

"And attendance should be compulsory," says a grave teacher sitting near. "Until the educator of the mind and the educator of the body work side by side, and universally, the nation will never get any full and harmonious returns from the immense capital of brains and money expended in our schools. But private enthusiasm and personal conviction cannot accomplish it—the State must take it in hand."

These speakers are right.

LITTLE BIOGRAPHIES.—MUSIC.

BY HEZEKIAH BUTTERWORTH.

X.

ROSSINI.



ROSSINI.

THIS melodious tone-poet, whose works caught and enchanted the popular ear as they appeared, and still hold and delight and thrill susceptible audiences, had a romantic and adventurous early history. He was born at one of the old towns of the then Papal states on the Gulf of Venice, in 1792.

His father played the French horn.

His mother was a *seconda donna*, and was famous alike for her beauty and her voice.

At this time the towns of Italy held fairs at which music was one of the essential attractions. The Rossini family attended these fairs as performers, wandering from town to town in a gipsy-like way, and gaining some money and much applause amid the gay and fantastic scenes. In a climate of almost perpetual summer, with a sky always blue above them and fields always green around them, with novelties

always in view, and music for an unending occupation, the Rossinis seem to have been contented and happy. Their son was a product of these romantic and tune-ful scenes. His father discovered that the boy was a musical prodigy, and the happiness of the wandering Italian family was augmented by this re-inforcement of their musical resources.

The boy had a pure soprano voice such as the Church at that time highly valued. He made the acquaintance of priests, and may be said to have grown up in the Roman Church. At the age of fourteen he could sing all music at sight, and at the age of eighteen he began his remarkable career as a composer, and gave to composition some twenty-two years.

The Italians are a music-loving people, very emotional and warm in their appreciation of sentiment, and the melodious Rossini became to them a kind of divinity. Americans can little understand the reckless enthusiasm with which his works were hailed. He wrote in the palmy days of the opera. One of his first works was *Tancredi*, which quite turned the light heads of the Venetians. While it was the talk of Venice, and while every one in that city from the gondolier to the patrician was repeating its favorite airs, Napoleon entered Italy in triumph. He was then regarded as the conqueror of Europe, but his fame was eclipsed in the city of the doges by Rossini. The *fêtes* of the French emperor failed to draw the people from the enchantments of *Tancredi*.

Rossini was naturally indolent, yet during the twenty-two years which he gave to musical composition, he produced some forty notable works. How-

ever indolent in body, his mind seemed ever at work. An anecdote is related by one of his friends which illustrates the peculiarities of his character:

"During his residence in Venice this year [1813] he lodged in a little room at one of the small inns. When the weather was cold, he used to lie and write his music in bed, in order to save the expense of fuel. On one of these occasions a duet which he had just finished for a new opera, '*Il Figlio per Azzardo*,' slipped from the bed and fell on the floor. Rossini peeped for it in vain from under the bed-clothes; it had fallen under the bed.

"After many a painful effort he creeps from his snug place, and leans over the side of the bed to look for it. He sees it, but it lies beyond the reach of his arm; he makes one or two ineffectual efforts to

"He had scarcely finished the second duet when one of his friends entered.

"Have the goodness to reach me the duet that lies under the bed.'

"The friend poked it out with his cane, and gave it to Rossini.

"Come,' said the composer, snuggling close in his bed, 'I will sing you these two duets, and do you tell me which pleases you the best.'

"The friend gave the preference to the first; the second was too rapid and too lively for the situation in which it was to stand. Another thought came into Rossini's head; he seized his pen, and without loss of time worked it up into a terzetto for the same opera. The relator of this anecdote states that there was not the slightest resemblance between the two duets."



ROSSINI COMPOSING IN BED.

reach it. He is half-frozen with cold, and, wrapping himself up in the coverlet, exclaims:

"I will write it over again; there will be nothing difficult in this, since I know it by heart.'

"He begins again, but not a single idea can he retrace. He fidgets about for some time—he scrawls—but not a note can he recall. Still his indolence will not let him get out of bed to reach the unfortunate paper.

"Well,' he exclaims, in a fit of impatience, 'I will rewrite the whole duet. Let such composers as are rich enough keep fires in their chambers. I cannot afford it. There let the confounded paper lie. It has fallen, and it would not be lucky to pick it up again.'

At the beginning of his fame, his parents retired to Pesaro, the little town where he was born. Rossini loved his parents, and after a musical triumph, it was his delight to go home, and carry there the fruits of his success, and cheer his father with the story of his growing fame.

Rossini had a quick and ardent mind, and turned into music every happy impression. One of his greatest works is the oratorio *Moses in Egypt*. When composing it some one said to him:

"What! are you going to make the Hebrew sing? Do you mean to make them *twang it* as they do in the synagogue?"

"Twang it."

The words suggested to him a new movement of

composition, and he thereupon composed the magnificent and admired chorus that so closely resembles the music of the synagogue.

Rossini produced opera after opera; his fame filled Italy; he was crowned with laurel; was fêted at Rome, and crowds followed him wherever he went. One of his most popular works was *Il Barbiere di Siviglia*, but his noblest dramatic work was "William Tell" — *Guillaume Tell*.

The overture to this work is one of the most beautiful and poetic compositions in music, full of sentiment, affluent and dreamy, the perfection of instrumentation, the soul of romance and pleasing emotion.

Rossini went to Paris in the ripeness of his powers, and there, in an atmosphere of glowing appreciation, he dreamed the dream of *Guillaume Tell*. He resolved to give this composition his best efforts, and he wrote it in the retirement of a château. He hoped this work would prove his musical crown, and he lavished the wealth of genius upon it.

The music of the work proved a triumph, but the libretto was poor, and the production failed to awaken the excitements to which Rossini had been accustomed and which he expected would follow him from the idle Italian cities to the French capital. "William Tell" was soon withdrawn from the public.

The partial failure of the work was a great disappointment to Rossini. He had written thirty-nine operas before he was thirty-eight years of age. He was verging on forty, which is the old age of youth, and the summer-time of a life that fills all its seasons. He resolved to leave public life, to live in retirement, and not to write for publication any more.

The charm of the music of "William Tell" was so great that the public still demanded parts of it, especially the overture.

"Well, Maestro," said a friend to Rossini one day, "you are on our programme again to-night. We are to play the music of the second act of William Tell."

"What! the *whole* of it?" asked Rossini sarcastically and bitterly.

When it was known that Rossini had withdrawn from public life in good health and in the maturity of his powers, at the age of forty, his friends and the public pressed him as to the reason.

His answer was characteristic:

"I desire to spend more time with my aged father. I was away from my poor mother when she expired. This was a source of grief to me, and I have been apprehensive that this might happen in my father's case, and I wish to solace his last years."

The chief glory of Rossini's life came to him in the years of retirement, unsought and unexpected. In 1832 a noted Spaniard, Don Vazela, asked him to write music for the Latin hymn, the "Stabat Mater," not to be made public, but to be performed in a private chapel.

Rossini was in sympathy with the subject. He had been a choir boy in Italy, and his dream of the

crucifixion was associated with the melodramatic scenes of the old cathedrals, the pictures, the incense, the processions. He loved his mother, and this led him to a great reverence for the Virgin, whose sorrows at the cross of Christ the hymn portrays. Rossini was a gayman in his best years, but always a devout Catholic.

He fell ill during the composition, which may have helped give to the work some of its sombre and majestic coloring. What Handel's *Messiah* is to the Protestant Church, the *Stabat Mater* is to the Catholic Church; and, like the *Messiah*, it was produced under remarkable influences.

Although written only for private use, an accident gave it to the public. Don Vazela died, and his heirs sold the manuscript. The *Stabat Mater* flew over Europe and was played on every organ. It became the oratorio of Passion Week in Catholic churches. It was criticized by Protestants as sensuous and sensational, yet it soon found its way into Protestant music-books in selections to which were adapted other words. It is Rossini's most enduring work.

Rossini died in his seventy-fifth year, having spent thirty-five years in retirement. His faults were those of the Italian character, and even his religious music suggests what is showy and splendid, rather than a calm and lofty spirituality. But he was the greatest composer of the present century, and his life has in it much that is tender, loving and beautiful. His devotion to his parents is especially to be commended, and the splendor of gifts would seem to make some of his compositions imperishable.

XI.

HYMN WRITERS OF THE PAST.



LUTHER.

WE have glanced at the lives of the composers of the best popular music; beautiful lives most of them are, though some of them are very sad. There are other composers, whose inspirations are found among the music on almost every piano and organ, at whose lives we would like to more

than glance—tender Frank Schubert, imaginative Schumann, dramatic Verdi, electrical Berlioz; but we must leave them here, and devote the last of these articles to the writers of household music, of song music and hymn music, of strains that live with the years, and that influence the spiritual life and haunt the memory.

There have been several books written on the origin of the poetry of the best-known hymns, but no book that we have seen on the writers of the music of popular hymns. We open the church-music book and find written over the hymns, "Gregorian," "Luther," "Handel," "Pleyel," "Dr. Arne," "Mason," "Hastings," "Root," "Bliss;" but these names convey to many minds but a shadowy meaning.

We have already spoken of the Singing Church in Milan and the origin of the Ambrosian Chant. If you will examine any carefully edited church-music book you will find several tunes marked "Gregorian" or "Gregorian Chant." Among these tunes are solemn and melodious "Olmuz," stately and majestic "Hamburg," and many others. What do the editors of such books mean by "Gregorian"?

Gregory the Great was one of the most eminent

served—how often such an implement might be deservedly employed even now in church choirs and choral societies! The bed on which he used to recline when visiting the music school is also exhibited. His principal work, the "Gregorian Chant," is still sung during Lent with all of its original simplicity and monotonous solemnity.

The tune "Old Hundred" was written at the time of the Reformation, and is attributed to Martin Luther himself in many collections of music. It seems to have been written by William (Guillaume) Franck (Franc), one of the fifty musicians who composed the tunes to the French version of the psalms. These tunes were printed at Strassburg, in 1545, shortly before Luther's death. The words which are now commonly sung to the tune were written by Bishop Ken for the students of Winchester College



POPE GREGORY TEACHING THE CHOIR BOYS.

bishops of Rome. Under his missionaries England was converted from Druidism to Christianity. He was an invalid for most of his life, but he had an active and vigorous mind, and his tastes were highly poetic and musical. He reformed the music of the Church, prepared a simple but harmonious service for antiphonal choirs, and the chants thus prepared are known as "Gregorian," as are the hymns that follow any part of their ancient movements and combinations of tone. Gregory founded a music school for the Church, and adopted the plan of separating the chanters from the regular clergy. The *whip* with which he used to assist restive scholars in properly controlling their artistic temperaments is still pre-

to sing in their rooms. Luther wrote many tunes, and adapted to his own words the music of other composers. Thus we have Luther's "Judgment Hymn," and "A Mighty Fortress is our God." He followed Ambrose and Gregory in enriching the Church with music, and was himself followed by Wesley, who selected music for his own and Charles Wesley's hymns. The hymns of Luther were the trumpet-calls of the Reformation. "The children learned them in the cottage, and martyrs sung them on the scaffold."

"Pleyel's Hymn" is one of the tones of the ages. Almost every one can sing it in all Christian lands. Pleyel was a pupil of Haydn. He composed music

for the piano and violin. At the close of the last century his fame eclipsed that of all other musicians, and hardly any other music was in demand. His symphonies and concertos are mostly forgotten now, and the principal treasure that survives the wreck of his fame is the simple strain sung in village churches, and over open graves, known as "Pleyel's Hymn." Truly it is the unexpected that falls to fame in the history of music.

It may be well for the reader to examine a music-book while reading this article, and to illustrate the reading by playing the tunes whose origin is given.

One of the best-known hymns in the music-books was written, we are sorry to say, by a very erratic genius. It is called "Greenville" in collections of sacred music, but is otherwise known as "Rousseau's Dream." Rousseau was born in Geneva in 1712. He was a wanderer by nature, a man of restless mind and diseased imagination, but of wonderful genius. His character was full of contradictions. He went to Paris as a musician and author. He wrote against the theatre, and then himself composed a play; against novel-reading, and then himself published a romance. He made brilliant friends, always to forfeit their esteem; he was a pietist and an infidel; talked morality, and sent his own children to the foundling hospital. He was "a man in convulsions," yet there was much that was lovable in his nature and generous in his life. He wrote many books, which the world has long ceased to read; and of all the music and poetry and products of his strange crazed life, little but "Greenville" remains.

Dr. Thomas Arne, author of the universally known hymn-tune "Arlington," was a stronger and more consistent man. He seemed predestined to music. His father intended him for the law, and discouraged his musical pursuits. Young Arne would attend concerts in the dress of a servant to avoid observation. He secreted a spinet in his room, muffled the strings, and practised nights. He continued the study of law for a time, but music was his all-absorb-

ing passion, and to it he finally devoted his life. He died in 1778, in his sixty-ninth year.

The well-known hymn-tune "Antioch" was arranged from Handel by Dr. Lowell Mason.

Martin Luther adapted religious words to sweet German songs, and the Wesleys followed his example in popular English tunes.

The Wesleys may be said to have carried the Gospel into Cornwall. It was a country rough in people as in its coast, and when John Wesley and John Nelson first went there to preach they were so inhospitably received that they were compelled to "dine off of the blackberry bushes." Before John Wesley died he preached to thirty thousand people in Cornwall, and there was hardly a home on all the wild coast where his presence would not have been welcome and regarded as an honor.

Charles Wesley was once preaching to the seafaring people in Cornwall, when some drunken sailors struck up the tune "Nancy Dawson." Between the Gospel and the rude song it was a sorry contest, but the preacher was equal to all occasions.

"Come again," said he to the Cornish peace-breakers, "and you shall hear your tune sung to better words."

They came to the next service, when to their surprise Wesley sang a hymn he had written to the air of "Nancy Dawson:"

"Listed in the cause of sin,
Why should a good be evil?
Music, alas! has too long been
Pressed to obey the devil."

The hymn grows devotional, and presents Christ and his promises. The tars were pleased, and learned the words, and seemed to enjoy it more than their old song.

"It was a cheery thing," said an old Cornishman; "my father used to sing it, just as the old folks he said used to sing it. I used to sing it with him. He and I shall join again by and by, and 'Heaven be ours forever.'"

WHAT TO DO ABOUT IT.

A MERICAN EAGLE. (1) "How do animals know their masters so well?" In the same way that you know your friends, by getting used to them. Animals have sight, smell and hearing much keener than yours, and make better use of what sense they have than most boys do. (2) "How do they know their names so well?" By hearing them often, and associating the sound with the food to which it often calls them.

A NXIETY. "We have taken a cottage for the summer, but it is too far to carry furniture, and mother says we shall take only what is absolutely necessary: stove, table, dishes, and beds. It seems to me the house will look so bare and desolate we shall be homesick in a week. How can we make the house more tasteful and comfortable?—for I want my brothers to think it pretty and have a pleasant time." The tendency to over-decoration, which is one of the fine

vices of the time, speaks pretty plainly in this appeal, which comes too late for the answer to be of use the present season. However, the advice will keep good till next year. "Anxiety" has found before this that her brothers, if they are real boys, will find any place pleasant in summer where they can have plenty of out-door sport, and lounge comfortably in-doors, without asking much finery about the house. For the rest, people who have a pleasing view from their windows, a fresh, cool, clean house, with turf and shade about it, and plenty of wild flowers for the rooms, do not miss the mats and tidies, fancy chairs and bric-a-brac of town. The summer-houses of wealthy people are being simply furnished, often with floors left bare for coolness, and the indispensable furniture. However, you can take sprigged muslin curtains for the windows, photographs mounted to hang without frames, Japanese scrolls, white laced toilet covers for bedrooms, pillow covers and trunk covers of chintz, gay mats for the floor, bright sofa rugs and turkey-red cushions for the veranda seats. The necessary furniture may be fanciful as you please — rattan rockers, camp-chairs and Shaker chairs, a pretty table or two, faience lamps and colored china for the dining-room.

RUTH. "Will you tell me how to take stains of fruit and medicine out of white linen or cotton?" Fresh stains may be taken out by pouring boiling water through the spot for a long time, or by laying the article wet in very hot sun and keeping it wet two or three days. Leaving things out in a pouring rain will remove many stains. For obstinate cases, dip the spots in Javelle water from the druggist's, using one tablespoonful to a pint of hot water. Wet the spot only, and lay in the sun three minutes. If the spot does not change, dip again and expose to the sun, then rinse in water slightly sour with lemon or vinegar, and in clear water twice, and dry in the sun. The Javelle water must be carefully used, for it will eat holes in cloth and take out the color where a spot falls. Sunshine is the best bleach for fruit stains, and Javelle water for medicine which oxalic acid will not remove. To use the latter, wet the spot, dip into a strong solution of the acid, and lay in the sun, or hold over hot steam a few minutes, rinse in water with a spoonful of ammonia to the half-gallon, then in plenty of clear water, and finish in the sun.

JENNIE C. Wordsworth is the author of the lines quoted, which should read, —

"A primrose by the river's brim,
A yellow primrose was to him,
And nothing more."

EASTON, ME. "Our boys wish to inquire which side of the cow they sit to milk, in Mass.?" The right side of course, though they don't always get there in pictures. The W. B. rather enjoys getting a postal across the country with a little sly fun in it like this.

MRS. M. J. W. "Will you be kind enough to point out the best and simplest method of teaching arith-

metic? I am delighted with Grammar Land, and would be glad if you could point me to books as good in the study of Arithmetic." A series of arithmetic is in preparation for home use; but until it is published it gives me great pleasure to recommend those best and clearest of school-books, old-fashioned it is true, but prepared by the soundest and most logical mathematicians, than which nothing better has since appeared — Colburn's Mental Arithmetic, and Ray's Arithmetic in three parts.

VERNER S. G. and others will find the question about the night in Pompeii answered in last number of WIDE AWAKE.

PUSSIE. "Can you tell me any good way to clean ribbons? I wear light-blue ribbons a great deal, and wearing them once or twice soils them." Brush the soiled parts only, with refined benzine applied by a nail-brush, rinse in fresh benzine and dry in the shade. Or wash with warm water and fine white castile soap, rinsing and pressing between soft white cloths. (2) "What can I do for my hair, which is very oily. I have tried washing it with soap and water, but it only stays fresh a day or two, and it is such a trouble to dry it." Wash your hair at night, wipe well, comb and shake it loose in a current of air, do it up lightly in a net, and it will give you less trouble. Or bathe your head with weak alcohol, slightly perfumed with Florida water or lavender water; rub it into the roots of the hair with a linen cloth. It will cleanse the scalp, and correct the unpleasant oiliness of the hair. Pussie very shrewdly "hopes everybody will add some court-plaster to their medicine box when they go travelling;" and I join with her in thinking it very good.

Several requests have been made to have answers in a given number of the magazine, and the effort is to answer each question as soon as possible after it comes. But birds migrate in spring, and the Wise Blackbird is no exception, and letters written in April only found him in June, clear across the country by the Pacific, where he can reach the Wise Men of Asia more readily. Sometimes it takes a good while to stir up the Seven Wise Men in different quarters of the world, for a question can come on a postal card which it takes more than the Seven to answer, and some answers come in the shape of magazine articles, because the subject cannot be well treated in brief. But *every question* is answered as soon as possible, and fully enough to give the most and best that is known about it, and questions are always welcome, provided they are of genuine interest to the one who asks, and cannot be answered by references at hand, by the dictionary, the encyclopædia, or the next person one meets. How do I know when questions are asked out of real interest, and when they are only for the sake of asking in an idle way? That's where the wisdom comes in. Don't waste time and ink apologizing for the trouble you give, or the nature of the question, but ask as freely as it is pleasant to answer.

THE WISE BLACKBIRD.